

Crop and Clearance Return for 1864 as given by those who have returned.

NAME OF CONCERN.	Number of Factories in 1863.	Number of Factories in 1864.	Increase.	Extent of Land under Tea cultivation in 1863.	Extent of Land under Tea cultivation in 1864.	Increase.	Outturn of 1863 in lbs.	Outturn of 1864 in lbs.	Increase.	Estimated out-turn for 1865.
Mr. Jennings	1	1	...	...	90	90	...	...	...	...
Borak Tea Company	1	1	...	80	100	20	...	...	...	...
Kortore Tea Company	...	1	...	...	92	92	...	...	...	...
Jheraghat	...	1	...	...	73	73	...	...	...	...
Mutual Tea Company, Lallamookh	1	1	...	360	525	165	...	4,320	4,320	16,000
Mr. I. Sued	...	1	...	...	45	45	...	...	...	...
Alipore	1	1	...	38	112	74	...	...	...	1,600
Borooneheerra	...	1	...	...	60	60	...	...	...	...
Victoria Tea Company, Garden Kallacheerra	1	4	3	276	725	449	2,560	5,600	3,040	16,000
Dikseea	...	...	...	80	235	155	...	...	...	4,000
Arattapore Tea Company	1	1	...	193	301	108	...	7,813	7,813	16,000
Cachar and Sylhet Company	1	1	...	600	635	35	12,000	22,000	10,000	48,000
Doodpatia	1	1	...	371	501	130	...	8,000	8,000	51,200
Dikhorua	1	2	1	95	280	185	...	...	...	6,400
Messrs. Moran and Company	3	3	...	540	753	213	368	523½	155½	800
Major Gram Tea Company	1	1	...	50	170	120	...	...	...	...
Borakai Tea Company	1	1	...	450	600	150	13,138	24,000	10,862	40,000
Messrs. Tydd, Forbes and Company	1	1	...	161	250	89	...	7,200	7,200	60,000
Katta Khal Tea Company	1	1	...	100	250	150	1,360	8,036	6,676	16,000
Larsinga	1	1	...	125	325	200	...	...	...	4,000
Katirail	1	1	...	40	140	100	...	...	...	3,200
Mr. Campbell for Doyapore	1	1	...	20	100	80	...	...	...	40
Choolang	1	1	...	40	100	60	...	...	...	...
North Cachar Tea Company	1	1	...	20	75	55	...	...	...	640
Eastern Bengal Tea Company	...	1	...	...	258	288	...	...	...	8,000
Appin and Lala Estate	1	2	1	187	255	68	...	1,002	1,242	12,000
Mutual Tea Company	1	1	...	110	382	272	750	...	...	4,000
Eastern Cachar Tea Company	1	1	...	24	453	429	14,300	32,738	17,938	48,000
Irongmara Tea Company	1	1	...	82	125	43	...	3,120	3,120	9,600
Jellalpor Company	...	1	...	...	117	117	...	...	...	...
Victoria Tea Company	1	1	...	338	448	110	14,154	30,054	15,900	64,000
Hylakandy Tea Company	1	1	...	40	120	80	...	...	...	2,000
Elgin Tea Company	1	1	...	1,269	1,373	104	55,873½	12,12,732½	11,56,859	2,09,600
Cachar Company	2	5	3	70	343	273	...	...	...	...
Chutlakowar Tea Company	2	2	...	...	20	20	...	...	...	...
Messrs. White and Phillips	...	1	...	450	7,31½	281½	...	8,716	8,716	28,000
Eastern Bengal Tea Company	1	1	...	...	...	...	...	...	...	...
Total	33	48	15	6,239	11,663	5,424	1,15,001½	13,76,845	12,61,843½	6,59,080

CACHAR;

(Sd.) R. STEWART,

Deputy Commissioner's Office,

Deputy Commissioner.

The 30th May 1865.

Labour Return for 1864-65 as given by those who have returned.

Number.	NAME OF CONCERN.	NAME OF FACTORY.	No. of Imported Labourers actually present on the 30th April 1865.			No. of Imported Labourers under agreement discharged during 1864-65.			No. of Imported Labourers died during 1864-65.			No. of Imported Labourers absconded during 1864-65.			No. of time-expired Imported Labourers actually present on the 30th April 1865.			Average daily number of Local Labourers at work.	REMARKS.
			Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	Mr. C. B. Jennings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	Borak Tea Company	...	20	16	3	39	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Kurkie Tea Company	...	33	19	4	56	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Kurkie Factory	...	76	29	19	124	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Mutual Tea Company	...	262	66	9	337	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	123	43	12	178	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Mr. H. Will	...	40	4	2	46	...	...	...	...	...	...	...	...	...	...	...	...	...
9	Parson Chutras	...	373	106	45	524	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Victoria Tea Company	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	13	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Kanchipore	...	172	52	14	238	...	...	...	...	...	...	...	...	...	...	...	...	...
13	Dickson	...	290	130	108	528	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Arcootipore Tea Company	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Cachar and Assam Company	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	Dikhoosha concern	...	214	90	31	335	...	...	...	...	...	...	...	...	...	...	...	...	...
17	Doodpalee Tea Company	...	228	149	63	440	...	...	...	...	...	...	...	...	...	...	...	...	...
18	Messrs. Moran and Company	...	145	51	30	226	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	30	10	5	45	...	...	...	...	...	...	...	...	...	...	...	...	...
20	Major Gram Tea Company	...	125	35	24	184	...	...	...	...	...	...	...	...	...	...	...	...	...
21	Barokhai Tea Company	...	112	43	15	170	...	...	...	...	...	...	...	...	...	...	...	...	...
22	Messrs. Tydd, Forbes and Company	...	377	154	39	570	...	...	...	...	...	...	...	...	...	...	...	...	...
23	Katia Khal Tea Company	...	111	57	9	177	...	...	...	...	...	...	...	...	...	...	...	...	...
24	...	...	142	55	9	206	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	146	70	16	232	...	...	...	...	...	...	...	...	...	...	...	...	...
26	...	...	146	88	18	252	...	...	...	...	...	...	...	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total			5,745	2,141	836	8,723	264	104	61	429	733	169	60	1,078	933	66	29	1,176	838

CACHAR, DEPUTY COMMISSIONER'S OFFICE, }
The 30th May 1865.

R. STEWART,
Deputy Commissioner.

(Sd.)

**Papers respecting the fall of an
Aerolite in the Sub-Division
of Sherghotty.**

From J. W. DALRYMPLE, Esq., Officiating Commissioner of the Patna Division,—(No. 329, dated the 5th October 1865.)

COPIES forwarded to the Government of Bengal with reference to orders No. 1686 of 14th April last. The aerolite is forwarded separately by dāk banghy.

From W. C. COSTLEY, Esq., Deputy Magistrate of Sherghotty, to A. HOPE, Esq., Magistrate of Behar,—(dated Gya, the 29th September 1865.)

WITH reference to your memorandum No. 838, dated the 26th instant, I have the honor to submit, as requested, a circumstantial report connected with the fall of the aerolite referred to therein.

2. As stated in my demi-official note of the 23rd idem, forwarding the stone to you for your inspection, I at first doubted whether it was a true aerolite or not, in consequence of the color being different from the one that fell in the Furreedpore district in 1850, which, if I recollect right, was brown in exterior appearance and the flint or silica—of which an iron aerolites are chiefly composed—being distinctly apparent; but I find from Mr. Peppe, the Sub-Deputy Opium Agent, that there can be no doubt of its being a true aerolite, as he has already seen two that fell in this district which presented a similar structure and appearance.

3. The replies to the questions put by me in conformity with the instructions contained in the letter sent from the Trustees of the British Museum, dated 23rd January 1863, which was forwarded with your memorandum No. 297, dated 12th May 1863, have not been received; but Hanooman Singh, a resident of Mouzah Ahiherah, in Pergunnah Bilounjah, Thannah Nubbeenuggur, who witnessed the fall of the aerolite, states that on the 25th August last, about 9 A. M., a stone fell from the heavens, accompanied by a very loud report, in some upland appertaining to Mouzah Umjhiawar, burying itself in the earth knee deep, and that at the time the sky was cloudy and of a murky color, the air calm, and no rain. He does not say what appearance the aerolite presented, whether it fell obliquely or straight down, and whether the stone was enveloped in fire or not, how soon after the stone was taken out of the earth, and if it was warm or cold; my questions have been put to elicit this information, as also the position of the beholder in relation to the aerolite at the time it was falling.

4. When examined the stone was found to be broken in two pieces, but as it reached me in three pieces, I imagine that the smaller piece must have been chipped off by some accident afterwards. This piece is in the possession of Mr. O'Connor, Assistant Superintendent of Police, who will, I have no doubt, willingly make it over to you if required.

5. The latitude and longitude of the spot where the aerolite fell can, I fancy, be approximately obtained from the knowledge of its position with reference to known localities. But this information, which I do not at present possess, together with the replies to the queries put by me and noted above, will have to be furnished hereafter, as they appear necessary to make the report more ample and can conveniently form an addendum to it.

Memorandum from A. HOPE, Esq., Magistrate of Behar,—(No. 365, dated the 30th September 1865.)

FORWARDED to the Commissioner of Patna with reference to his Circular No. 85, dated 27th April 1863.

Particulars connected with the aerolite are given in the accompanying letter, dated 29th instant, from the Deputy Magistrate of Sherghotty.

From S. C. BAYLEY, Esq., Officiating Secretary to the Government Bengal, to the Secretary to the Asiatic Society,—(No. 6081, dated the 26th October 1865.)

I AM directed by the Lieutenant-Governor to forward, for the Museum of the Asiatic Society, an aerolite which fell on the 25th August last in an upland appertaining to Mouzah Umjhiawar, in the Sub-Division of Sherghotty.

2. I am also to forward, for the information of the Society, a copy of a communication* from the

Commissioner of Patna containing some particulars connected with the fall of the stone, which was witnessed by Hanooman Singh, a resident of Mouzah Ahiherah, in Pergunnah Bilounjah, Thannah Nubbeenuggur. The further particulars promised by the Deputy Magistrate of Sherghotty will be communicated to you as soon as they are received in this office.

3. I am to request that your Society will be good enough to cause all the particulars of interest connected with this aerolite to be communicated to the authorities of the British Museum.

**Report on the Cultivation of Cinchona
at Darjeeling during the Month
of August 1865.**

From T. ANDERSON, Esq., M. D., Superintendent of the Botanic Gardens, and in charge of the Cinchona Cultivation in Bengal, to S. C. BAYLEY, Esq., Junior Secretary to the Government of Bengal,—(No. 15, dated the 20th September 1865.)

I HAVE the honor to submit the annexed Report on the cultivation of Cinchona at Darjeeling during the month of August 1865.

Report on the Cultivation of Cinchona at Darjeeling during August 1865.

THE growth of the plants continues to be satisfactory, and the increase by cuttings has been successfully carried on during the month. The total number of plants and partially rooted cuttings of all species on the 1st September was 92,038. The number of cuttings made during the month was 11,121.

2. The weather during the month of August has differed very little from that of June and July; there has been excessive rain, complete saturation of the atmosphere, accompanied by dense mist, and almost no sunshine, while an equable temperature has prevailed everywhere. Only on five days did no rain fall; the total fall of rain during the month at the 4th plantation was 41 inches, or 136.58 inches from the 1st of January.

The temperature at all the plantations has varied little from the temperature of the two previous months.

At the 4th plantation the mean maximum temperature was 85.54, the mean minimum 66.7, and the mean temperature 76.16.

At the 5th plantation nine observations of the minimum thermometer give a mean minimum temperature of 71.9.

3. During the month the number of plants of *C. Officinalis* at the 1st and 2nd plantations has been increased to 100 plants at each plantation, making the total number of specimens permanently planted out 3,436.

4. The least and greatest growth of each species at the different plantations is given in this table.

Table shewing the Maximum and Minimum growth of species of *Cinchona* during August at five different Plantations.

NAME OF SPECIES.	First Plantation, maximum and minimum growth.	Second Plantation, maximum and minimum growth.	Third Plantation, maximum and minimum growth.	Fourth Plantation, maximum and minimum growth.	Fifth Plantation, maximum and minimum growth.
<i>C. Succirubra</i> ...	...	...	2 to 3½ inches.	¾ to 5½ inches.	½ to 9½ inches.
<i>C. Micrantha</i> ...	...	...	¼ to 1¼ „	4 to 12½ „	
<i>C. Officinalis</i> ...	½ to 4 ins.	¼ to 2¾ ins.	¼ to 4¾ „	¼ to 6¾ „	¼ to 3¾ inches.
<i>C. Pahudiana</i> ...	¼ to 2½ ins.	1 to 3¾ „	¼ to 4 „	3 to 9 „	3¾ to 11 „

5. I have lately been able to correct an error which occurred in determining the height above the sea of the five plantations. The altitude of these plantations was found by observations made by a boiling point thermometer, whose readings had been compared with a standard at the Calcutta Observatory. A large bubble of air had evidently become entangled among the mercury in the bulb during the journey from Calcutta, thus completely deranging the instrument. The error in the thermometer was detected after determining the height of a place in the Teesta Valley, whose altitude had previously been found by a mercurial barometer, but it was then too late to repeat the observations at the *Cinchona* plantations with trustworthy instruments. During the present rainy season I found time to make a series of observations at all the plantations with two mountain barometers by Newman, and also with a boiling point thermometer. These instruments had all been compared with standards at Calcutta, and I tested them at Darjeeling at a point whose height had been determined by Dr. Hooker.

The corrections I have made are as follows:—

1st Plantation, supposed height	5,500 feet,	true height	5,321
2nd Ditto	ditto	4,350	ditto 5,000
3rd Ditto	ditto	3,715	ditto 4,410
4th Ditto	ditto	2,500	ditto 3,332
5th Ditto	ditto	1,825	ditto 2,556

Number and distribution of *Cinchona* Plants at the Government Plantations at Darjeeling on the 1st September 1865.

NAME OF SPECIES OF CINCHONA.	Number in permanent plantation.	Number of stock plants for propagation.	Number of seedlings or rooted cuttings in nursery beds for permanent plantation.	Number of rooted cuttings in cutting beds.	Number of cuttings made during the month.	Total number of plants, cuttings, and seedlings.
<i>C. Succirubra</i> ...	389	10,000	None	18,095	5,530	34,014
<i>C. Calisaya</i> ...	None	23	...	74	11	108
<i>C. Micrantha</i> ...	15	2,539	...	620	600	3,774
<i>C. Officinalis</i> , including varieties	870	10,000	8,459	24,741	4,980	49,050
<i>C. Pahudiana</i> ...	2,162	None	2,936	None	None	5,092
Total ...	3,436	22,562	11,389	43,530	11,121	92,038



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 22, 1865.

OFFICIAL PAPERS.

A SUPPLEMENT to the GAZETTE will henceforward be published, containing such Official Papers and Information as the Government of Bengal may deem to be of interest to the Public, and such as may usefully be made known.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on a payment of six Rupees per annum if delivered in Calcutta, or twelve Rupees if sent by Post.

No Official Orders or Notifications, the publication of which in the GAZETTE is required by Law, or which it has been customary to publish in the GAZETTE, will be included in the SUPPLEMENT. For such Orders and Notifications the body of the GAZETTE must be looked to as heretofore.

Correspondence relative to the introduction of Agricultural education in Bengal.

From BAHOO JOYKISSEN MOOKERJEE, Zemindar, Ooterparah,
to F. R. COCKERELL, Esq., Officiating Secretary to the
Government of Bengal,—(dated the 15th March 1864.)

A collegiate institution for imparting to native youths education of a more practical nature than is at present given in Government schools has been long a desideratum. The present system of education has no doubt awakened the national mind to the benefits derivable from the cultivation of literature and science; but it has at the same time left many things undone which are essentially required by the exigencies of the country. The current of youthful ambition, and all their ideas of greatness, wealth, and power have hitherto been directed towards attaining some office of all rement in the Government service; but it still fails to infuse into their minds a desire to elicit for themselves an honorable and independent career by the cultivation and practical application of those arts and sciences to which the nations of the West owe their present wealth and prosperity. Foremost among these in the country stands agriculture, the importance of which as a branch of study in the Indian colleges it is scarcely possible to exaggerate. The last Agricultural Exhibition, so happily and successfully inaugurated by His Honor the Lieutenant-Governor, has shewn to demonstration the advantages that might be derived from an improved and scientific mode of agriculture. In a country whose revenue and national wealth depend mainly on the produce of its soil, the indifference shewn to the cause of agriculture by the upper and middle classes is very generally regretted. Men of education here, unlike those of other countries, take no

part in improving the agricultural produce of the land, an office invariably left in the hands of ignorant and illiterate peasants who are too poor, superstitious, and credulous of success to lay aside the time-honored customs of the country, and too timid to avail themselves of the benefits of any salutary innovation. To remedy this evil, at least to a certain extent, a collegiate institution might be established, where, in addition to the subjects taught in other colleges, the students may systematically receive lectures on the principles, and be trained in the practice, of agriculture. It is needless to dwell on the necessity of imparting to students a good English education preparatory to their receiving lectures on agriculture, as, without a competent knowledge of literature and science, they can hardly be expected fully to comprehend and appreciate the principles of the art. Such a combination of theoretical knowledge with practical training would give them an opportunity of competing for the University honors as well as of obtaining an insight into the practical workings of the art. This is the more desirable in the present state of the country, as people can now be hardly persuaded to send their sons to an institution which professes exclusively to teach them agriculture without imparting to them that education which has hitherto secured to the recipients a position in society and considerable encouragement at the hands Government. A combination of the two systems would, therefore, not only be highly attractive, but would at the same time confer lasting benefits on the community. The Presidency and the Hooghly Colleges, though so near to the metropolis, do not pretend to impart these benefits to any the slightest extent, not to speak of the difficulties, inconveniences, and expense which a large number of families of the higher and middle classes feel in sending their boys far from their homes, even for the sort of education given in them. Besides the distance and other inconveniences, the people of the mofussil are afraid of keeping young boys in Calcutta on

more than one account. The Hooghly College is moreover not capable of educating more boys than it does at present. These inconveniences are not only felt by the middle classes, but also by the large mass of comparatively wealthy population inhabiting several large and thriving villages, of which Bally and Ooterparah, may be called the centre. Fully entering into the spirit and appreciating the policy of Government embodied in the last Education despatch, I am humbly of opinion that in the present state of the country what is required most is to give a large number of the high and middle classes thoroughly good education simultaneously with imparting elementary knowledge to the masses. Experience has shewn that the idea of Government educating the masses to any extent without being materially aided by the people is a delusion, and which can only be brought within the sphere of rigid reality when there is a sufficient number of educated men in the upper and middle classes who are now, generally speaking, as ignorant of literature and science as their progenitors, and whose education in the absence of a central collegiate institution would terminate at a point at which little real good can accrue to the recipients.

Some years ago Baboo Rajkissen Mookerjee and myself applied to Government, on two different occasions, for placing, within the reach of this community, a central collegiate institution by raising the status of the Ooterparah Government school into a college. I beg to re-submit, for ready reference, copies of the said two applications, as well as copy of the answer given by Government on our last application. The answer to the first application has been missing, but it will be found in the records of Government. Since our last application I have not been inattentive to the increasing wants of the community, as I submitted personally a plan almost analogous to the one now proposed to Sir J. P. Grant in 1861 in an audience with His Honor, when he was pleased to promise his cordial support of the scheme. Permit me to state that these papers do away with the necessity of recapitulating here the extensive demand for sound liberal education that exists in this locality and the extent of population that would be benefited by the establishment of a college at Ooterparah. They further set forth the reasons, which I hope will be deemed irrefragable, as regards the supposed injury to the interests of the Presidency and Hooghly Colleges referred to in the answer to our said last application.

Relying on the above facts and reasons regarding the necessity of imparting to the rising generation the blessings of a sound education based upon principles of practical utility, I take the liberty of re-submitting, in a modified form, the proposal for the conversion of the Ooterparah school into a collegiate institution. In support of the school Government contributes at present Rupees 100 a month, and myself and Baboo Rajkissen Mookerjee contribute an equal sum, the remaining expenses being defrayed by schooling fees. To maintain the proposed college in an efficient and creditable state it will be necessary to ensure a monthly income of about Rupees 2,300 in addition to the Rupee 200 now contributed. To raise this sum I beg respectfully to submit the two following proposals for the favorable consideration of Government: *First*,—That with reference to the observations contained in Mr. Junior Secretary

Buckland's letter, paragraphs 4 and 5, above alluded to, I would increase the additional sum then offered from Rupees 200 to 500 per month, to be paid by me for a period extending to ten years, when it is believed the college will be self-supporting. I shall pledge one of my estates of an equivalent income to ensure the payment of the grant, provided Government be pleased to supply the residue of the expenses, which, it is believed, will be less than half of aggregate sum, Rupees 2,500, required at present. It will be optional both with Government and myself to reduce our grants proportionately as the amount of schooling fees rises gradually. *Second*.—The other alternative is, that if Government consents to pay one-half, Rupees 1,150 per month, I am ready to guarantee for the payment of the other half, to be raised by schooling fees, any deficit being made up by myself for a period of ten years, and for the security of which I shall pledge one of my estates as above-mentioned. This latter proposal is in conformity with the recent orders of Government relating to Vernacular schools, whereby Government vouchsafes to grant half the expenses of a school should the other half be raised by private subscription and schooling fees; but it need scarcely be said how incalculably superior will be the benefit conferred on the community by a grant made on the above principle on the present occasion. If the proposed measure be carried into effect, the cost to Government, I beg to submit, would be about Rupees 2 a month for each of the lads under education,—a sum not much above the cost incurred by the State for the low elementary education imparted in the grant-in-aid schools scattered over the country.

With regard to the status of the proposed college, I would beg to suggest that there should be in it a sufficient staff of Professors to enable the students to compete for the B. A. degree conferred by the Calcutta University, and that there should be a distinct chair for practical agriculture and the industrial arts. The aim of the proposed college should, in this respect, be distinct from that of the existing colleges, in which the mere theoretical knowledge now imparted to our youths already shews symptoms of the failure of a system which entails vast expenditure without producing adequate results. The importance of a chair for practical agriculture amongst the staff of Professors can scarcely be overrated. His appointment will not only enable the students of the college to gain an insight into the principles of both agriculture, and some of the physical sciences, and to apply those principles practically, but his services may occasionally also be available (travelling expenses being paid) for delivering lectures to the boys of the grant-in-aid schools maintained by myself and other individuals jointly with Government in the Howrah, Hooghly, and Burdwan districts. The boys may also be invited from these schools to attend the college by rotation to hear the lectures and take part in working out the system practically. A model farm may be attached to the proposed institution, where improved modes of cultivation and breeding of cattle on a moderate scale may be made familiar to the students and the community in general. I beg leave to propose the following establishment, subject to such alterations and modifications as the educational authorities may deem proper.

COLLEGE DEPARTMENT.

	Rs.
Principal and Professor of Mathematics and History ...	600
Professor of Literature and Mental Philosophy ...	400
Professor of Agriculture and Physical Science ...	500
Pundit ...	50
	1,550

SCHOOL DEPARTMENT.

	Rs.
Head Master ..	200
1st Assistant ..	150
2nd Ditto ..	75
3rd Ditto ...	60
4th Ditto ...	50
5th Ditto ...	40
6th Ditto ...	30
7th Ditto ...	25
8th Ditto ..	20
2 Pundits ..	40
4 Senior Scholarships ...	64
8 Junior Ditto ..	64
1 Librarian and one Writer ..	40
Duftrees, Durwans, and Malees	40
Contingent Charges ...	52
	950

Total, Rs. ... 2,500

Should the Government be graciously pleased to comply with this application, the sum of about Rupees 25,000 will be necessary to make some additions to the present school building and to build three houses for the Principal and Professors, as well as for making a small model farm and for purchasing furnitures, instruments, &c. If half of this be paid from the educational funds, the other half will be made up by me, including the existing surplus funds of the school.

As collateral circumstances, I beg leave to submit that the advantages accruing from the existence of a public library on an extensive scale and a public dispensary at this place should not be overlooked in taking the present proposal into consideration.

Having explained my views and wishes at length, I beg you will be so good as to lay this before His Honor the Lieutenant-Governor for his favorable consideration. I need not say how grateful myself and the native community would be for your supporting this application.

From BABOO HURRY MOHUN MOOKERJEE, Seebpore, to F. R. COCKERELL, Esq., Officiating Secretary to the Government of Bengal, —(dated the 11th May 1864.)

BELIEVING, as I do, that the Agricultural Exhibition lately held at Alipore has well served the purpose of drawing the attention of the people to our deficiencies in awakening their curiosity and

rousing the national mind from the torpor of ages, I think the time has come for the Government to make an organised effort for teaching them agriculture; I do myself the honor, therefore, most respectfully, to submit the following suggestions for the consideration and orders of his Honor the Lieutenant-Governor:—

1st.—I beg to propose the formation of agricultural classes in connection with the zillah aided schools. These classes to be taught by men of experience versed in the science connected with the cultivation of the soil.

2nd.—The establishment of model farms to be attached to schools for the purpose of giving practical lessons on agriculture. In these farms foreign seeds may be acclimatised, soils analysed, and the native agriculturists helped with information relating to their vocation.

3rd.—That means be furnished to every model farm to carry on experiments in breeding and rearing of farm-yard stock and acclimatising useful foreign animals.

As agriculture has lately received great assistance from chemistry, and it is of the utmost importance that Indian agriculturists should possess some knowledge of the principles of that science, it is desirable that means should be adopted to teach the elements of chemistry in every zillah school.

The greatest drawback to carrying out this scheme at present is the difficulty of procuring competent tutors, I would therefore propose that, in the first instance, agricultural classes be opened in the Normal schools of Hooghly, Burdwan, and Dacca, in order to train up a body of teachers, and when they shall be available the plan may be extended to zillah schools. Such a class has already been established in the normal school of Calcutta and found to answer well.

The cost of such a scheme of agricultural tuition will not, it is believed, be great, while the advantages which it is likely to confer on the people will be immense, and will in every way justify and repay the outlay.

The country is essentially agricultural, and the people are employed in the production and preparation of different agricultural articles. Now efficiency in the process depends on a knowledge of scientific agriculture; I therefore earnestly trust that His Honor the Lieutenant-Governor, who projected the late exhibition and carried it through with great energy, tact, and judgment, may be pleased to take my proposal for the establishment of agricultural classes into his favorable consideration.

I crave leave to state that I have for many years devoted myself to the study of agriculture. I have published a treatise on agriculture, called the Krishee Durpun, for which the Agricultural Society was pleased to confer on me a pecuniary reward. I shall be happy and proud to render any assistance in my power to the furtherance of the scheme now propounded.

From W. S. ATKINSON, Esq., M. A., Director of Public Instruction, —(No. 259T., dated Darjeeling, the 20th September 1864.)

COPY forwarded to the Junior Secretary, Government of Bengal, for information with reference to his office Nos. 1743 and 2360, dated the 6th April and 18th May respectively.

From W. S. ATKINSON, Esq., M. A., Director of Public Instruction, to the Secretary to the Agricultural and Horticultural Society,—(No. 2770, dated Darjeeling, the 25th August 1864.)

I HAVE the honor to forward the accompanying

* Letter from Baboo Joykissen Mookerjee, to the Officiating Secretary, Government of Bengal, dated 15th March 1864.

Letter from Baboo Hurry Mohun Mookerjee, to the Officiating Secretary to Government of Bengal, dated 11th May 1864.

Letter from the Inspector of Schools, Central Division, to the Director of Public Instruction, No. 658, dated 8th July 1864.

request that they will favor me with their opinion on the subject of (agricultural education with reference to the capabilities and requirements of the Lower Provinces of Bengal.)

2. The main questions to be considered at the outset appear to be these:

Is there any probability that theoretical instruction in the scientific principles of the farmer's art will be of any advantage, under present circumstances, to the people of this country?

Is there any existing class possessed of the requisite preliminary education who would seriously take up agriculture as a practical science with the view of turning their knowledge to account, either for the improvement of their own property, or in the pursuit of farming as a profession?

And again, supposing that there is such a class, is the theoretical instruction, which alone can be imparted in the lecture-room, the kind of training which is likely to prove of practical advantage to them?

3. It will be remembered that it is only within recent years that agricultural schools have been established in England, and these are attended almost exclusively by a class of students who intend to make farming on a large scale the business of their lives, and who leave the class rooms to enter on an apprenticeship to some practical agriculturist, from whom they learn those necessary practical details without which their theoretical knowledge, however sound, would not only be valueless, but often mischievous.

4. It appears doubtful whether any corresponding class can be found in this country who would systematically attend an agricultural lecture-room. Indeed the land system of the country would appear to make the existence of such a class impossible, and if this is the case, it is difficult to perceive what would be gained by engrafting on a college connected with the University a professional agricultural department such as is contemplated by Baboo Joykissen Mookerjee. A few students of the general department might no doubt cursorily attend the agricultural lectures from motives of curiosity; but it may be doubted whether the knowledge they would carry away would be of much value in itself, or would be ever applied to any useful purpose.

5. If anything is to be effected for agriculture and the improvement of cattle through the agency of schools, more might possibly be done by introducing these subjects in a popular form into the course of instruction provided in the normal schools for the training of village schoolmasters, than by the more ambitious attempt to indoctrinate college students with the theoretical principles of agriculture, depending on the applications of various allied branches of the physical and natural sciences. Through the normal schools improved ideas about agricultural arrangements and the management of cattle may be gradually diffused throughout the

country amongst the actual cultivators of the soil, and in this way some good may be effected; but it seems doubtful whether anything more than this can be done with advantage by the direct agency of schools or colleges.

6. If, however, the Council should be of opinion that an attempt to convey systematic professional instruction in agriculture may be made at the present time with fair prospects of success, I would, in that case, beg to be favored with a general outline of the course and nature of the instruction which they would think most suitable for the people for whom it is designed, and which could be handled with reasonable effect by such teachers as are here procurable.

7. On the other hand, if they are of opinion that little good is to be anticipated from the adoption of such a course under the existing circumstances of the country, I shall then be glad to be informed whether there is any other mode by which, in their opinion, the Education Department can aid in promoting those improvements which are on all hands acknowledged to be of vast importance, no less to the country at large, than to those who are more directly interested in the cultivation of the soil.

P. S.—A copy of this letter, and its enclosures, will be sent to the Landholders' Association and the British Indian Association, with a request that they will express their opinion on the questions herein raised.

From H. WOODROW, Esq., M. A., Inspector of Schools, Central Division, to W. S. ATKINSON, Esq., M. A., Director of Public Instruction,—(No. 658, dated the 8th July 1864.)

WITH reference to your endorsement dated 8th June 1864, forwarding, for my opinion, certain proposals made by Baboo Hurry Mohun Mookerjee for the establishment of agricultural schools, I have the honor to submit the following remarks for your consideration:—

2. I quite agree with Baboo Hurry Mohun Mookerjee that it is desirable "to make an organised effort for teaching agriculture." He recommends "the formation of agricultural classes in connection with the zillah aided schools," probably he means the zillah and aided schools. I believe that with neither institution can the scheme be worked unless Government makes it advantageous to the pupils. Aided schools are theoretically under adequate local management, and though the Inspector's advice is attended to in ordinary matters, I am perfectly satisfied that scarcely one out of the 337 aided and rewarded schools for boys in my division would consent to aid in bearing the additional expense of agricultural classes. In zillah schools the object presented to the Educational Department has been to give a good general education which should be valuable in any line of life, and the course prescribed by the University for the entrance examination, and formerly by the Council of Education for the junior scholarship examination, has mainly determined the extent and character of the studies of the pupils. An effort was made to introduce the study of agriculture into the course of the Baraset Government School, but the result has been discouraging. The study does not *pay*, and therefore is rejected. You will see from former correspondence in your office that I strongly pressed this fact on the attention of your predecessor, and earnestly pleaded that marks for a knowledge of agriculture

should tell in the award of scholarships. Mr. Gordon Young consulted on the matter Mr. Lodge and others, and eventually decided that scholarships could not be awarded on the results of different and independent examinations. The creation of the scholarship fund has increased the difficulty, for the pupils of Baraset do not contend, as formerly, with one another only, but with all the entrance students of the Lower Provinces of Bengal. It is not, therefore, to be supposed that entrance candidates will jeopardize their chance of scholarship by devoting time to an extraneous study. The only way of getting the subject attended to in zillah schools would be to award in each school two or more scholarships of about Rupees 4 a month, tenable for one year, to the students who answered the best in a written examination. The lectures and the examination should be in Bengalee and all boys below the entrance class should be eligible for the competition. I recommend that the answers be given in Bengalee, as it may happen that a boy in the lower forms may take up agriculture, and such a boy would have no chance, if the examination were in English, from his inability to express his knowledge in a foreign language. If there is any difficulty in obtaining the money for a scholarship, a free studentship in the school would be an object of competition for many poor students. Boys who are willing to compete for the prize should have a little plot of ground allotted to them, and the state and culture of this little garden should bear marks. They should not be compelled to do all the work themselves, but yet should not be allowed to employ the school servants. If the state of the garden does not count towards the scholarship, it will be neglected and will become an untidy tangled mass of weeds. There is always the danger that the prizes may be carried off by boys who have no land to cultivate, and who do not intend to be agriculturists, and who would take up the Chinese language just as readily as agriculture if it shewed the way to a small scholarship without spoiling the chance for a big one.

3. The most that can be expected from the Government zillah schools is to lead some twenty or thirty boys to learn something of the subject. There is some hope that among this number some four or five may have a piece of land, and of these few perhaps one may be found adventurous enough to attempt to put in practice what he has been taught.

4. In the examination marks should be given for the papers; for the state of the boys' note books of the Bengalee lectures on the subject; and for the state of their gardens.

5. It is absolutely certain that nothing whatever will be done unless Government makes it *pay*. This is a *sine qua non*. Baboo Hurry Mohun Mookerjee has, during the last nine months, been employed as a Teacher in the Calcutta Patshala, and has given seventy-three lectures in Bengalee during this time to the normal school students on such subjects as—the profit from improved agriculture; the use of manures; the best modes of cultivation; the qualities of different kinds of soil, &c.

6. I recommend that Baboo Hurry Mohun Mookerjee be requested to prepare two courses of about twenty-four lectures each on the different branches of agriculture; that a sum of Rupees 50 for each set of lectures be allowed him to get them translated into English; that the translation be

submitted to Mr. Stalkartt or some other member of the Horticultural Society, who would advise you whether the lectures were likely to do good. If a competent judge should decide that the lectures would be likely to do good, then they might be delivered for two months at Howrah, Ooterparah, Baraset, and Barrackpore schools, and at Hooghly and Calcutta. These places are, excepting Baraset, all on the Railways. He might have his travelling expenses paid by the school at which the lectures were given, and might continue to draw his fixed salary from the Calcutta Patshala, it being assumed that, as long as the experiment lasts, he is employed on deputation. In the course of six or eight months we could judge if the plan were likely to succeed. It will not succeed without some rewards being established. At first free studentships might be of use. Perhaps you might yourself try an experiment with free studentships as the prize, and if anything seemed likely to come of it, you could go up to Government for the scholarships. I shall be happy to draw out a scheme arranging for the delivery of the lectures if you see fit to send me instructions to do so.

From W. S. ATKINSON, Esq., Director of Public Instruction, to the Secretary to the Government of Bengal,—(No. 2353, dated the 27th May 1865.)

In continuation of my No. 259T., dated 20th September 1864, relating to measures proposed for the promotion of agricultural education in Bengal, I have the honor to submit, for the consideration of Government, the papers noted in the margin conveying the views of the several associations interested in agriculture whose opinions have been consulted on this important subject.

2. His Honor will perceive that the measures recommended by the Landholders' and Commercial Association are in the main directed to the same object as those proposed by Baboo Joykissen Mookerjee, who advocates the formation of an agricultural department in connection with a new college for general education to be established at Ooterparah, towards the maintenance of which he has offered a handsome contribution. The advocates of this course of action propose that arrangements should be made in connection with some one or more of our colleges for general education to provide systematic lectures on agriculture and the sciences which bear upon it, for the instruction of the more wealthy classes of Native society who are the owners of landed property, and have a direct interest in its profitable management, in the hope that some of them may apply the teaching they receive to the improvement of their crops.

3. It cannot be doubted that if there were a reasonable chance of obtaining a hold on these classes of the community and influencing them in such a manner as to lead to the practical results contemplated by the Landholders' Association, it would be well worth while to try the experiment recommended. I much fear, however, that the prospect of success from this plan of operations must be regarded as exceedingly remote. My own acquaintance with the arrangements for the management of landed property in this country is necessarily very limited; but, from what I know of the students who frequent our colleges and

pursue a University course of study, I think it extremely doubtful whether any of them would be found to take a practical interest in a course of agricultural lectures; while their time is necessarily so fully occupied with the general subjects of study that even were their interest excited by such lectures they would still be unable, from want of leisure, to make a profitable use of them. The probable success of such instruction must, I believe, depend on the probability of its attracting a special class of students unconnected with the general classes of the college, consisting of young men who have either already completed their University course, or who have abandoned that course in order to follow what will generally be considered the bye-path of agricultural study. I do not believe that such a class of students will be easily found or formed, and it will be seen that in this opinion I am to a great extent, if not entirely, supported by the Agricultural and Horticultural Society of Bengal and the British Indian Association.

4. The latter body is indeed of opinion that much good might be done by making more complete provision than heretofore for teaching the natural and physical sciences in the Government colleges with an especial view to their bearing upon practical agriculture. I should be one of the last to throw a doubt on the high value claimed for scientific training; but to be of value such training must be real and thorough, and in considering the extent to which it can be carried in ordinary schools and colleges, it must never be forgotten that the first thing to be provided in these Institutions is a *good general education*, in which the different branches of study universally recognised as essential for informing and disciplining the mind are suitably combined and kept in due proportion. It is only by those who have completed their general education that a special course of scientific study having a professional bias can generally be pursued with advantage; and till there is at least a probability of some demand in this direction, it would seem premature to provide the means of instruction which such a course of study would necessarily require, for it must be remembered that this could only be done at a very heavy outlay, inasmuch as competent teachers are not to be found in India, and are not easily procurable even in England.

5. For these reasons, after the fullest consideration I have been able to give to the subject, I cannot recommend that any attempt be made at present either to combine scientific agricultural education with the University education, for which the colleges are specially designed, or to engraft on any of them a separate professional department for the training of a hoped for, but as yet non-existent, class of practical agriculturalists.

6. Nor do I anticipate much advantage from an attempt to give lessons on agriculture in a more popular form to the pupils of the zillah schools. These schools are attended by the same classes of the community as the colleges and for the same objects, and though no doubt the students might be induced, as suggested by Mr. Woodrow, to read certain books or attend certain lectures on agricultural subjects by the offer of scholarships, it seems very doubtful whether the effect produced would be any equivalent for the requisite outlay.

7. If, however, a competent lecturer could be found, it might be worth while to try the experiment of deputing him in rotation to the different

schools and colleges to deliver short courses of popular lectures, not as a part of the school business, but for the benefit of the general public, with the view of arousing attention and disseminating the idea that there is at least a possibility of increasing agricultural profits by improved methods of cultivation and by the exercise of greater care and discrimination in the breeding of cattle. In this way public interest may perhaps be excited and the people led to discuss the suggestions made to them, and even prevailed on by degrees to bring them to the test of experiment.

8. I am still, however, inclined to adhere to the opinion expressed in the 5th paragraph of my circular letter that, as far as regards the action of the Education Department, the manner in which most good is likely to be effected is by disseminating information in a very humble way through the agency of the normal schools for the training of village school masters. The pupils in these schools are drawn from the country villages and are destined to return to them as teachers, and it seems possible that, by giving them simple instruction as to the objects aimed at by agricultural improvements and the gains to be anticipated from them, useful hints may be widely spread among the actual cultivators of the soil and gradually influence them in a right direction.

9. Of the proposal to establish model farms, I shall only say that all experience seems to be against them as examples for imitation. In practise they always prove costly experiments and are never worked to a profit. It is therefore hardly likely that they can be usefully employed in India as means of instruction.

10. It seems somewhat out of place on the present occasion to discuss the desirableness of establishing a new college for general education at Ooterparah; but as the question has been raised in the papers before me, I think it necessary to state that nothing will give me greater pleasure than to promote the foundation of such an Institution if the requisite funds are provided by private liberality, but that I am not prepared to recommend a grant of public money for this object. There is no pressing demand for additional colleges in the neighbourhood of Calcutta, and whenever Government may be willing to provide funds for the establishment of new institutions of this class, the wants of several remote districts have a strong prior claim to consideration.

From J. BECKWITH, Esq., Secretary, Landholders' and Commercial Association, to W. S. ATKINSON, Esq., Director of Public Instruction, — (dated the 21st October 1864.)

I HAVE to acknowledge receipt of your letter of the 13th ultimo, forwarding copy of letter (with enclosures) addressed to the Secretary of the Agricultural Society, and requesting the opinion of this Association on the subject discussed.

The question of the present state of the agricultural skill applied to the cultivation of the soil in Lower Bengal, and particularly in Nuddea, where the lands are generally above the level of the highest inundation, came under the consideration of the Committee some time since, and the means of teaching the agricultural population to apply the system of rotation of crops was partly considered in a letter addressed to the Government of Bengal under date the 18th June last.

In that letter I was directed to suggest the formation of an agricultural class in some one or

more of the educational establishments supported by Government under a professor or instructor well grounded in the principles of agriculture and of agricultural chemistry.

The Committee, in making this recommendation, did not profess to expect any early results. They are aware of the extreme difficulty of introducing improvements amongst an agricultural population holding under such tenures as are usual in Lower Bengal, and generally removed from such influence as is, in other countries, exercised over their tenants by landlords.

This difficulty is further greatly increased by the prejudice which exists against agriculture as a pursuit for educated men, and which leads men of all castes to consider it a disgrace for a person who can read and write, however imperfectly, to engage in agricultural labour.

Notwithstanding these difficulties, the Committee consider that some effort at improvement should be made and should be persevered in notwithstanding the apparent absence of good results for some considerable time, and as they consider that there is a very great want of information on agricultural subjects in all classes in India, from the officers of Government downwards, there would be no small advantage in having some recognised authority to whom Government and individuals would apply on doubtful points.

The best method of commencing to give agricultural instruction will depend greatly upon the class it is intended to influence, and the Committee do not think that there is at present much hope of advancing the existing race of cultivators by direct teaching. The unfortunate feeling, that agricultural labour is degrading to any one who can read and write, must be got rid of before any good can be done in village schools attended by the sons of ryots, because the very fact of imparting education diverts these boys from agricultural to quite other pursuits.

The class from which the Committee have the greatest hopes is that of the talookdars and the sons of traders and artisans, whose fathers have acquired moderate wealth and have invested it in the purchase of land. Many of the smaller talookdars are resident on their properties, and many are understood to have portions of their land in their own possession, or at least under their own control, and if these men had the opportunity of attending an agricultural class when at school or college, it may be hoped that some of them would apply the teaching they had received to the improvement of their crops.

This seems to the Committee the most likely means of introducing improved modes of cultivation and of gradually breaking down the prejudice which separates practical agriculture from education, and if a certain number of these small talookdars and sons of tradesmen and artisans should take to improvement and succeed, the most intelligent of the ryots would adopt the system which they saw to pay, and would learn, from observation and practical experience, what they never could have been taught from theoretical education in the schools.

It follows naturally from this that the Committee would have the agricultural class or classes wherever the young men referred to receive their education, and they consider that it will be better to have, to begin with, one or two professors or teachers of undoubted knowledge and authority than to

have a more numerous staff of men of inferior qualifications.

With regard to the establishment of model farms, the Committee do not recommend anything of the kind at present. They do not expect much from young men specially trained for farming, but rather from a certain number of men, probably later in life, applying the knowledge they obtained as part of their general education to the improvement of their property, and the probability of this is greatly increased by the steps Government are taking for the introduction and continuance of Agricultural Exhibitions in each of the districts of Bengal.

The farms proposed would entail very considerable expense and would not, in the opinion of the Committee, prove of much advantage. In the absence of young men seeking an education as practical agriculturists the chief use of the farm would be for experiments in introducing new crops, especially green crops, for rotation with grain crops and for food for cattle and the more general use of manures; and it is not doubted that any new grasses or green crops recommended by the professor could be tried through the means of individuals anxious to compete for the prizes offered at the exhibitions alluded to, or under the influence of those gentlemen whose interest in agriculture is certain to be stimulated by taking part in the management of such exhibitions.

From A. H. BLECHYNDEN, Esq., Secretary, Agricultural and Horticultural Society, to W. S. ATKINSON, Esq., M. A., Director of Public Instruction,—(dated the 16th February 1865.)

I HAVE now the honor to acknowledge receipt of your letter No. 2770 of the 25th August 1864, forwarding certain papers from Baboo Joykissen Mookerjee and others regarding agricultural education, and requesting the opinion of the Council of this Society on the subject with reference to the capabilities and requirements of the Lower Provinces of Bengal.

In reply I am desired by the Council to intimate that, having duly and carefully considered the subject in all its bearings, they are of opinion that the time has not yet arrived for the appreciation of the importance of an agricultural education as a speciality, and that the Society could not properly recommend an outlay of public money in attempts to promote it. To all the three questions submitted in the 2nd paragraph of your letter the Council are disposed to answer in the negative. From what they can learn, the village schools do not appear to be largely frequented by the sons of the "chasa," or agricultural classes. One of the members (Mr. Sawers) remarks to the following effect on this point:—

"During a long residence in the mofussil I have had opportunities of visiting many schools and have myself been instrumental in the establishment of schools and have always found that the class of boys who attend those schools was not such as required, or would benefit by, an agricultural education, and if among the boys there might be some of the sons of the chasa class, they were not sent there for the purpose of education to enable them by enlightenment to improve upon the system of husbandry and tillage, which had raised their fathers to comparative opulence, but they were sent for the purpose of being fitted to enter a different sphere of life altogether."

3. Dr. Anderson also (another member) gives the result of the attempt made for some years in

the Botanical Garden on the establishment of a school for educating the sons of mallees in the simplest principles of horticulture: "The education imparted"—he observes—"had reference solely to horticulture, and it was supposed that the parents would highly prize the privilege of having their children educated in their own calling. Instead of this, however, the small amount of English and writing necessarily taught were looked to as the sole advantage to be obtained, and the boys, as soon as they considered themselves proficient in these acquirements, gave up gardening for what they considered more lucrative employment."

"At the same period an attempt was made to explain to the mallees orally in the vernacular a few of the simplest laws regulating the growth and propagating of plants naturally and artificially, as well as the effects produced on plants by the changes of the seasons. This was also a complete failure, as appeared by an examination of some of the more intelligent men. They had learned nothing, but they seemed fully impressed with the notion that they were expected to do their duty in some way or other different from what they had been accustomed to."

4. The Council would observe that the result of the Society's attempts towards meeting the wants of its members for a superior class of gardeners was equally unsuccessful. After an existence of nine years, during six of which about sixty boys entered their school, and the expenditure of Rupees 3,500 for wages to scholars and masters, only two lads, so far as can be traced, have followed the profession of gardening. "The failure thus recorded," observe the Garden Committee, "has not arisen from want of encouragement. Due notice was given to the lads on entering the school, and frequently reiterated, that when sufficiently acquainted with their work they would receive good situations in the garden, and that as applications were made to the Society they would obtain situations with wages ranging from Rupees 8 to 16 a month according to their ability. The failure may rather be attributed, the Committee think, to the desire which a little knowledge of reading and writing has imparted to them of following occupations which are not only considered more respectable, but which probably give a more immediate profitable return in the shape of wages; thus a lad would rather take employment as a sircar at Rupees 7 and 8 a month, than as a mallee at 6, though he might, in the course of a few years, obtain double that sum in fact, the one is more tangible than the other, consequently more prized."

5. Nor has the move made by the Society ten years ago to infuse a taste for agricultural and horticultural improvements among the adult population of Bengal been encouraging. In the year 1854 the Translation Committee issued the first number of a work called the "Indian Agricultural Miscellany," and published five numbers subsequently to complete a volume. The majority of these papers are translations from the Society's transactions and journals; the rest are original communications prepared expressly for the Miscellany. In the introductory paper to the first number the Committee earnestly invited the co-operation of the members of the Society, and the public generally, in the undertaking. They add in the last number an expression of their regret at being obliged to announce that very little assistance had been accorded to them by those to

whom they naturally looked for aid, namely, native zemindars and other wealthy members of the community. Up to the present time, though sold at prime cost, not more than Rupees 152 have been realised on account of this publication, so limited has been the demand for it, notwithstanding that it has been acknowledged by communications received from several gentlemen possessing considerable knowledge of the country and people that the language employed in these pages is such as is intelligible to the meanest capacity. Of another little work compiled by a zealous native member of the Society, Baboo Peary Chand Mittra, and published in 1861 under its auspices, entitled the "Krishi Patta," or agricultural readings, only eighty-one copies have been sold up to the present time.

6. But while not disposed to recommend, for present adoption, the project advanced by Baboo Joykissen Mookerjee, the Council are quite willing to allow that the move emanates from the right quarter. If other landholders will come forward and shew themselves equally ready, by purse as well as by exhortations, to promote an improved system of agriculture on their estates, there may be, some years hence, the Council hope, candidates for an agricultural education, and the Society would then be quite prepared to recommend Government to provide for this demand in their schools and colleges. The Council are of opinion that meanwhile the Education Department may be advantageously preparing itself for such a demand by introducing the subject of agriculture in its normal schools, as proposed in the 5th paragraph of your letter under acknowledgment.

7. I am directed, in conclusion, to take this opportunity of expressing the acknowledgments of the Society for the evidence afforded by your letter of the interest which the Lieutenant-Governor takes in the promotion of agriculture and of the good results likely to be rendered to the objects of the Society from the system so happily inaugurated by His Honor of annual Agricultural Exhibitions and competitions through the different divisions of the country.

From BABOO JOTEENDRO MOHUN TAGORE, Honorary Secretary, British Indian Association, to W. S. ATKINSON, Esq., M.A., Director of Public Instruction, &c., &c., &c.,—(dated the 24th March 1865.)

I AM desired by the Committee of the British Indian Association to acknowledge the receipt of your letter of the 13th September last, together with annexures, requesting the opinion of the Association on the subject of agricultural education with reference to the capabilities and requirements of the Lower Provinces of Bengal.

In reply I am desired to state that, in the opinion of the Committee, there does not exist at the present moment a class of men in Bengal possessed of the requisite preliminary education who would at once take up the science of agriculture and follow it as a profession. There is every prospect, however, of such a class soon springing up in the country. The immense rise in the prices of agricultural produce, coupled with the highly remunerative returns which investment of capital in the development of the resources of the soil generally finds, has considerably stimulated enterprising spirit and opened new prospects for agricultural pursuits. Persons who live on salaried incomes, and who necessarily consider the present increase in prices most

annoying to themselves personally, literally envy the lot of the peasantry, whose profession they used once to regard as mean and low. It would be easy, and the present is the most fitting opportunity, to direct the taste of this section of the population to the study of scientific and practical agriculture. This taste, the Committee have no doubt, will be rapidly developed if it is properly encouraged. As the blessings of education will be diffused among the people of this country, they will find that they cannot depend for their livelihood on salaried situations. They must look to professional employment or independent enterprise for the decent maintenance of their families and the gratification of tastes which an enlarged mind superinduces, and what could be more profitable to them than to take advantage of the natural fertility of their native land and develop its exhaustless resources?

Entertaining this opinion, the Committee deem it highly desirable that some arrangements should be made for rendering instruction in agriculture a part of the general scheme of education in this country. They admit that it would be premature to establish an agricultural college. The maintenance of such an institution would be attended with an expense which would not be justified in the present position of things. But the Committee think the object aimed at may be attained by the establishment of agricultural teacherships in vernacular village schools in the way suggested by Baboo Harimohun Banerjee, as it will bring a knowledge of improved agriculture within easy reach of that class of the community who are directly engaged in the cultivation of the soil, and to whom it is likely to prove of the greatest use and importance.

By way of supplement to the above arrangement the Committee would recommend that greater attention may be directed to the study of physical sciences in the collegiate institutions of the country, particularly to the study of those branches of science which are allied to practical agriculture. That alone can effectually remove the deep-rooted prejudices which now prevail in the country against agriculture and the industrial arts generally. Chairs for some of the sciences already exist, and the professorial staff may be strengthened in such proportion as may be deemed advisable. Each of the Colleges ought further to be supplied with a well-furnished laboratory, which, the Committee are informed, none of the mofussil colleges now possess to the desired extent. The professors will then have opportunities to introduce practical experiments in illustration of the theories they teach.

The Committee need hardly remark that it is highly necessary, for purposes of real improvement, to imbue the sons of the higher classes with a taste for scientific study. They alone will have the leisure and means to carry out in practice the lessons learnt in the lecture-room. When persons owning landed properties possess the necessary knowledge to apply scientific principles to the improvement of those estates, they will naturally adopt improvements, not from amateur love of science, but from motives of self-interest. If such improvements prove remunerative, as they are sure to do, a spirit of generous rivalry will be created, and it need hardly be added that the general community will profit in the end.

It may be contended that the soil of Bengal is naturally so fertile that no aid of science is

needed in the cultivation of its principal produce. But the Committee do not advocate instruction in scientific agriculture simply for the sake of a larger outturn of produce than a given quantity of land now yields. Scientific education will not only assist in the alternation of the crops and the renovation of the soil, but it will aid materially in the development of the general resources of the country. Hence it is that the Committee urge the extension of the present arrangements for instruction in science and the direction of the attention of our students in the colleges to those branches of it which are allied to practical agriculture.

With a view to rear up a body of qualified teachers it would be necessary, in the first instance, to provide for their instruction in the normal schools, which are now maintained for the training of village school masters. A manual of practical agriculture in Bengallee may also be prepared, giving a description of the soils of Bengal, their peculiarities, the means of their improvement, of the preservation of their vitality, the crops adapted to the soils, the advantages of drainage and irrigation, leading principles of practical chemistry; in short, such ideas about agricultural arrangements and the management of cattle as may be easily comprehensible to the masses, and the practical application of which may be beneficial to the country.

By thus working at the two ends, that is, with the English colleges at one end, and the vernacular schools at the other, some good, the Committee have reason to believe, may be effected, though they can conceive that improvement to the desired extent must be the work of time. A good beginning will, however, be made. Both the higher and middle classes will doubtless feel an interest in agriculture, which has not been hitherto experienced, but which is likely to be sustained in a great measure by the periodical agricultural exhibitions contemplated by His Honor the Lieutenant-Governor.

The model farm is another source of instruction. If the Government were disposed to establish model farms experimentally in some of the principal districts in the country, for instance in those districts where collegiate institutions are now maintained, and the people, as well as the students of both the English and vernacular schools, were invited to see with their own eyes what they may learn in the lecture-rooms, a great facility would be offered to the acquisition of practical knowledge.

The proposal for the establishment of a college at Ooterparah is quite independent of the question of agricultural education, although the author of it aims at combining general education with the study of agricultural science by means of the institution proposed by him. The thirst for English education, particularly of a high order, is now so great that the Committee believe were half a dozen colleges to be established immediately between Calcutta and Hooghly none of them would languish for want of support. It is a matter of general complaint, the Committee may mention, that while elementary anglo-vernacular schools are being rapidly multiplied under the provisions of the Education despatch of 1854, there has not been one additional college opened for instruction in higher studies beyond those founded by the late Council of Education. The Committee fully agree with Baboo Joykissen

Mookerjee in the arguments which he has advanced in support of his project, and when he offers to contribute Rupees 500 a month towards the defrayal of the expenses of the institution, or, in case the Government consent to pay one-half of the expenses, to guarantee the payment of the other half, they need hardly observe that such a laudable proposal is entitled to the support of the Government.

In conclusion, the Committee have to apologise for the unavoidable delay which has occurred in the transmission of this letter.

From the HON'BLE A. EDEN, Secretary to the Government of Bengal, to the Secretary to the Government of India, Home Department,—(No. 440T., dated on board the *Yacht Rhodas*, the 18th July 1865.)

I AM directed to submit, for the consideration of the Government of India, and for such instructions as His Excellency the Governor General in Council may think proper to give, the accompanying correspondence, as noted on the margin, relative to the important subject of agricultural education in Bengal.

Letter from Baboo Joykissen Mookerjee, Ooterparah, dated 15th March 1864.

Letter from Baboo Hurry Mohun Mookerjee, Seehpore, dated 11th May 1864.

Letter from Director of Public Instruction, No. 259T., dated 20th September 1864, and No. 2353, dated 27th May 1865.

2. Anxious as the Lieutenant-Governor is to encourage the zemindars and other landholders of Bengal in acquiring a scientific knowledge of agriculture, and in taking an active and personal interest in its practical application, His Honor does not find, in the papers submitted, any clue to guide him to a satisfactory solution of the question as to how this end can at present be accomplished by means of direct teaching either in the existing Government colleges and schools, or in a special college to be established for the purpose.

3. The Lieutenant-Governor does not think that instruction in practical agriculture can properly form any part of our course of general education, though it might be as well that the college lectures on natural and physical science should embrace a more distinct notice of agricultural chemistry, and that the Calcutta University should require, especially from candidates for honors in that branch, some special knowledge of the application of chemistry to agricultural purposes. If chemistry, as applied to agriculture and the rotation of crops, were made a subject of the B. A. examination, and if a knowledge of it were specially insisted on in the examination for honors in the natural and physical sciences, this would influence the course of lectures and might have the effect of inducing some of the candidates for University honors to turn their attention to the subject. The attention of the Syndicate of the University might be drawn to this matter. The effect, however, of any such change, if thought desirable, would probably for some time be limited, as the natural sciences are not a favorite branch of study with native youths, and it is believed that as yet honors in that branch have been taken only by one candidate.

4. The Lieutenant-Governor is inclined to think that the only effectual way of systematically teaching agriculture as an art, is by the establishment of a special institution with a model farm and a competent staff of instructors. But he is not aware that there are any persons in this country, whether Europeans or Natives, capable of managing such an institution, or of

giving instruction in practical agriculture; and, if such persons could be obtained from Europe, they must not only make themselves acquainted with the language of Bengal, but acquire a knowledge of the various crops, modes of tillage, and conditions of soil and climate peculiar to this part of India before they could impart much useful instruction to their pupils. The expenses of such an establishment would be far greater than the Government could properly undertake without some definite prospect that it would be to a great extent self-supporting. In the absence of an effective demand for this kind of education at something like its actual cost, the action of the Government could only follow the manifestation of enlightend individual munificence on a scale much beyond any thing that has yet been suggested.

5. An agricultural college combined with a model farm of moderate, but sufficient extent, would probably require an outlay of some £25,000 in the first instance for land and suitable buildings, and an annual expenditure of some £2,500. The former must be provided from private sources. Of the latter a portion, under good management, might be recovered by the sale of produce; and the remainder would have to be made good by the contributions of pupils and, if necessary, by subscriptions, supplemented perhaps by a moderate grant-in-aid from the State.

6. Though His Honor quite agrees with the Director of Public Instruction that the combination of instruction in practical agriculture with the general instruction given in the present public colleges and schools is out of the question, yet if an agricultural college were founded, it would probably be expedient to admit pupils of every class without much regard to their proficiency in school studies, and to afford them some means of acquiring a moderate amount of general knowledge while engaged in learning the business of an agriculturist.

7. The Lieutenant-Governor is also of opinion that, although the establishment of colleges, whenever they are self-supporting, is a most desirable object and one to be heartily encouraged, it would not be a legitimate application of the funds at the disposal of the Government to aid the establishment of a college for general education at a place so near to Calcutta and Hooghly as Ooterparah, even though instruction in agriculture were to be superadded to the usual course. Ooterparah, however, is not an unsuitable locality for an agricultural college; and if the liberal and public spirited proposal of Baboo Joykissen Mookerjee were backed by corresponding offers of assistance from other wealthy zemindars of Western Bengal, His Honor would not despair of seeing the design carried out on the footing described. Everything, however, would depend on the probability of finding a gentleman thoroughly competent to manage such an establishment, and this presents a difficulty which might prove to be even greater than that of providing the necessary funds. It would indeed not be easy to find even a competent lecturer for the purpose of being deputed in rotation to the different schools and colleges, as suggested in the 7th paragraph of Mr. Atkinson's letter; and if such a person were to be found, it seems very doubtful whether his lectures, especially if attendance at them had to be paid for, would command an audience, and whether, if they did, the result would be of much practical use.

8. His Honor sees no objection to the plan suggested by the Director of giving the pupils of the normal schools for the training of village school-masters some simple instruction in the elements of agricultural science. It would at least tend to familiarise the common people with the idea that improvement on their hereditary habits of cultivation is possible, and that they may learn from books and instructors much that will be useful to them in the pursuit of their daily occupation. A manual for the use of these schools could doubtless be prepared under the direction of the Agricultural Society and supplied at prime cost to the pupils through the agency of the School Book Society.

9. Much good will doubtless arise from the discussion of a subject of such vital importance to the agricultural community, and the Government is under great obligation to the Agricultural Society and the two Associations who have obligingly responded to the call made upon them and contributed valuable remarks and suggestions. When the Lieutenant-Governor is favored with an expression of the views of His Excellency the Governor General in Council as to the extent to which instruction in agriculture may be aided by grants of public money, he proposes to publish the correspondence in the supplement to the *Calcutta Gazette* for general information.

10. In the meanwhile His Honor is glad to be assured that the Agricultural Shows which have been held during the last two years, and

will be continued annually, are regarded by those most competent to judge of their effects as likely to answer the object for which they were instituted and to sustain, as they have created, among the higher and middle classes of native society, an interest in agriculture which before was unfelt.

From E. C. BAYLEY, Esq., Secretary to the Government of India, Home Department, to the Secretary to the Government of Bengal,—(No. 2581, dated Simla, the 6th October 1865.)

I AM directed to acknowledge the receipt of your letter No. 440T., dated the 18th July last, forwarding a copy of a correspondence relative to the subject of agricultural education in Bengal.

2. In reply I am directed to state that the

* To make chemistry as applied to agriculture and the rotation of crops a subject of the B. A. examination, and specially to insist on a knowledge of it in the examination for honors in the natural and physical sciences, the college lectures on those subjects being, in this view, made to embrace a more distinct notice of agricultural chemistry.

Government of India will ask the consideration of the University Syndicate to the suggestion* contained in the 3rd paragraph of your letter; but

that, until some precise measure or plan of proceeding is proposed, the Governor General in Council is not prepared to pronounce definitively "as to the extent to which instruction in agriculture may be aided by grants of public money."



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 29, 1865.

OFFICIAL PAPERS.

A SUPPLEMENT to the GAZETTE will henceforward be published, containing such Official Papers and Information as the Government of Bengal may deem to be of interest to the Public, and such as may usefully be made known.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of six Rupees per annum if delivered in Calcutta, or twelve Rupees if sent by Post.

No Official Orders or Notifications, the publication of which in the GAZETTE is required by Law, or which it has been customary to publish in the GAZETTE, will be included in the SUPPLEMENT. For such Orders and Notifications the body of the GAZETTE must be looked to as heretofore.

Statement of the Accounts of the Calcutta Port Fund for 1864-65.

From CAPTAIN JOHN G. REDDIE, Master Attendant, to the Secretary to the Government of Bengal,—(No. 2203, dated the 21st August 1865.)

In accordance with the provisions of Section 44, Act XXII. of 1855, I have the honor to submit, for the information and orders of His Honor the Lieutenant-Governor, the accompanying abstract statements shewing the Accounts of the Calcutta Port Fund for the year ending the 30th April 1865.

2. To effect a separation between the accounts of this fund and the general revenue a scheme was proposed by Mr. E. F. Harrison, the Officiating Deputy Auditor and Accountant-General, Bengal, which obtained the sanction of His Honor the Lieutenant-Governor and came into operation on the 1st of May 1864. On that date an account was opened at the Bank of Bengal called the "Calcutta Port Fund Account," and from that time all receipts of the fund have been paid into this account, while all the disbursements have been made by cheques drawn upon it. The accounts have been kept entirely at this office.

3. After a year's trial I have found that the new system has worked well, claims have been met with promptitude, the accounts have been effectually concentrated and adjusted, and I am now enabled to present a statement shewing accurately the accounts of the year 1864-65. The responsibility which rested upon me as the disbursing officer of the fund has been relieved by the audit of the Auditor-General, Bengal.

4. In consequence of the accounts of previous years being in arrears no statement of the assets and liabilities of the fund was obtainable when the new account was opened, and therefore the accounts for the current year, which I now submit, are simply accounts of the year's revenue. Until the arrears are brought up it will be impossible to state exactly the position which the fund occupies in relation to Government with respect to its assets and liabilities, and I would beg leave to submit that some measures should be taken to

ascertain this position. Such accounts as exist already are, in a great measure, defective, partly from the fact that for some time it was not clearly ascertained what were and what were not true debits of the fund, and partly from the fact of their having been compiled from unaudited charges.

5. In submitting the accounts for the year ending 30th April 1865 there are some points of interest which I would beg leave to bring to the notice of His Honor the Lieutenant-Governor.

6. The Cyclone of the 5th October 1864, as a matter of course, interfered most materially with the prosperity of the fund, adding very largely to the expenditure, and diminishing, in a great measure, the receipts.

7. With respect to the receipts, the revenue derived from moorings, which, in the first half of the year, averaged Rupees 22,257 per mensem, fell in the second-half to an average of Rupees 8,212.

8. In the Wreck and Anchor Department, during the corresponding periods, the average of receipts fell from Rupees 1,848 to Rupees 463 per mensem.

9. The water-tank boat, which earns on an average Rupees 350 or Rupees 400 per mensem, was for four months and a half under repairs and earned nothing. The loss in the receipts of the Harbour Master's Department, though not so great in proportion to the other departments quoted, was still considerable, amounting to about Rupees 10,000.

10. The effects of the Cyclone upon the charges against the fund are most apparent in the bills for work done and stores supplied by the Dock-yard.

11. In the first-half of the year the whole of such expenditure amounted to Rupees 81,814-5-11, in the second-half year it came to Rupees 4,14,636-1-6, thus shewing an increase of Rupees 3,32,821-11-7, almost the whole of which might, in my opinion, be fairly set down as extra expenditure on account of the Cyclone. In the cash account there is an item, Rupees 9,842-12-6, for "charges general," debitable to Cyclone account current. This amount is made up principally of direct cash payments for expenses incurred in emergent cases by my order with the general

Dr. *Calcutta Port Fund Cash Account for the Year ending 30th April 1865.*

Cr.

		Rs. As. P.	Rs. As. P.			Rs. As. P.	Rs. As. P.
RECEIPTS.				DISBURSEMENTS.			
To Bills receivable	...	5,74,937	3 0	By Light Vessels	...	12,510	8 3
" General Treasury	...	20,000	0 0	" " Houses	...	62,805	10 5
" Wreck and Anchor Department	...	2,719	0 9	" River Surveying Department	...	69,573	5 5
" Floating Light Vessels	...	119	2 0	" Channel Buoy Department	...	20,528	2 0
" River Surveying Department	...	282	9 3	" General Treasury	...	20,000	0 0
" Fine Account	...	1,104	0 0	" Wreck and Anchor Department	...	15,916	4 1
" Advances recoverable	...	3,232	8 0	" Harbour Master's Department	...	1,06,418	13 6
" Harbour Master's Department	...	178	0 0	" Row Boats, Bholeahs, &c.	...	12,438	9 5
" Master Attendant's Department	...	107	6 3	" Fire Engine Boats	...	941	0 9
" Cyclone Account	...	293	1 0	" Tank Boat	...	1,351	13 3
" Income Tax	...	1,814	2 1	" Master Attendant's Department	...	14,266	10 11
			6,04,787 0 4	" Dock-yard Establishment charges	...	3,328	0 0
				" Kedgeroe Port Establishment	...	2,156	10 0
				" Moyapore Magazine	...	322	7 10
				" Charges General	...	9,842	12 6
				" Interest Account	...	311	1 10
				" Port Dues	...	105	6 6
				" Advances recoverable	...	3,232	8 0
				" Towage Account	...	4,200	0 0
				" Income Tax Account	...	1,803	10 1
				" Balance in Bank of Bengal			3,32,053 6 9
							2,72,733 9 7
Total, Rupees	...		6,04,787 0 4	Total, Rupees	...		6,04,787 0 4

CALCUTTA,
MASTER ATTENDANT'S OFFICE; }
The 31st July 1865.

JOHN G. REDDIE, Captain,
Master Attendant.

Abstract of Revenue Account for the Half-year ending 31st October 1864.

		Rs. As. P.	Rs. As. P.			Rs. As. P.	Rs. As. P.
To Cash expenditure			1,48,856 15 5	By Receipts	...	3,31,804	5 0
" Debits incurred—							
Dock-yard	...	81,814	5 11				
Ordnance	...	13,028	14 8				
General Treasury	...	9,211	10 6				
			1,04,054 15 1				
To Balance, Profit and Loss			78,892 6 6				
Total, Rupees	...		3,31,804 5 0	Total, Rupees	...		3,31,804 5 0

CALCUTTA,
MASTER ATTENDANT'S OFFICE; }
The 31st July 1865.

JOHN G. REDDIE, Captain,
Master Attendant.

Dr.

Water-tank Boat.

Cr.

For the Half-year ending 31st October 1865.

		Rs. As. P.	Rs. As. P.			Rs. As. P.	Rs. As. P.
To Pay of Crew	...	468	0 0	By Earnings	...	1,858	13 0
" Amount paid Commissariat Department	...	229	12 0				
			697 12 0				
" Debits to Builder and Surveyor	...	111	7 1				
" Naval Store-keeper	...	57	9 9				
" Steam Factory	...	109	6 3				
			278 7 1				
" Balance	...		882 9 11				
Total, Rupees	...		1,858 13 0	Total, Rupees	...		1,858 13 0

For the Half-year ending 30th April 1865.

		Rs. As. P.	Rs. As. P.			Rs. As. P.	Rs. As. P.
To Pay of Crew	...	468	0 0	By Balance	...	882	9 11
" Amount paid Commissariat Department	...	186	1 3	" Earnings	...	800	5 6
			654 1 3	" Balance	...		1,682 15 5
" Debits to Commissariat Department	...	124	7 3				1,076 3 6
" Builder and Surveyor	...	758	0 9				
" Naval Store-keeper	...	675	8 4				
" Steam Factory	...	647	1 4				
			2,105 1 8				
Total, Rupees	...		2,759 2 11	Total, Rupees	...		2,759 2 11

JOHN G. REDDIE, Captain,
Master Attendant.

Report of the Proceedings of the Committee appointed to enquire into the causes of the loss of the Ship "Eagle Speed."

From CAPTAIN H. HOWE, Deputy Master Attendant, to the Junior Secretary to the Government of Bengal,—(dated the 27th September 1865.)

SIR,

WITH reference to your letter No. 5265 of the 2nd instant, I have the honor to submit, herewith, the report of the Commissioners appointed under Section C., Act I. of 1859, to enquire into the causes of and circumstances attending the loss of the Ship *Eagle Speed* off the Roy-Mutlah Sands.

P. S.—Appendix will follow.

INVESTIGATION into the loss of the Ship "Eagle Speed" in the outer Channels of the Mutlah, and into the attendant circumstances connected therewith on the 21st and 22nd August 1865.

PRESENT:

A. J. R. BAINBRIDGE, Esq., *Offg. Magte., 24-Perghs.*

CAPTAIN H. HOWE, *Depy. Master Attendant.*

The following witnesses were examined by the Commissioners:—

1. Captain Burbank.
2. " Dando.
3. " Boon.
4. Mr. Hoskins.
5. Dr. Donaldson.
6. " O'Sullivan.
7. Captain Brinsden.
8. Mr. DeGrouchy.
9. Mills, Topas.
10. Kemp, A. B.
11. McClune, A. B.
12. Mr. Carlisle.
13. Allsum, Topas.
14. Lieutenant Maitland.
15. Mr. McMaster.
16. " Conroy.
17. Charles Dermott.
18. W. Maynard, A. B.
19. Mr. Ewart, Pilot.
20. Monoo, Coolie.

App. p. 5, l. 5.
" 7, l. 14.

Schedule.—(Survey Report.)

App. p. 44, l. 9.

" 142, l. 27.
" 143, l. 1
" 162, l. 26.
" 163, l. 1 and 12, and other passages.

Schedule.—G.

1. THE *Eagle Speed*, a ship of 1,237 tons burden, was chartered in July last by the Emigration Agent for British Guiana to convey emigrants to Demerara.

2. Having been previously surveyed and passed by the Surveyor to Lloyd's as a good insurance risk for cargo, she was, on being tendered for emigrants specially surveyed by Captain Boon, the Government Surveyor, for this particular service, and pronounced sound, stanch, and seaworthy, and in every way adapted for the conveyance of emigrants. The number, size, capacity and condition of the boats were specially examined and reported on, and an additional boat making up the number to six, was ordered by the Surveyor, and provided by the captain of the ship.

3. It should be remarked here that the *Eagle Speed* came to this port from Auckland, New Zealand, to which place she had, under the inspection of the Emigration Commissioners, conveyed passengers from England, and that upon the evidence, there is not the smallest doubt regarding her sea-worthiness, and the soundness and efficiency of the boats.

4. The *Eagle Speed* had a European crew of twenty-eight, exclusive of four topases, all seafaring men, four cooks, a doctor, and compounder.

5. The *Eagle Speed* embarked the emigrants, 487 in number, including women and children, on the 19th August, between 9 and 10 A. M., but did not leave

Schedule B.—(Note of application.)

App. p. 9, l. 23.

" 14, l. 1.
 " 60, l. 11.

" 58, l. 5.

App. p. 17, l. 2.

" 46, l. 20.

Schedule C.—(Pilot's Report.)

Port Canning until the following morning the 20th, when she proceeded down the river at a light draught of 17 ft. 6 in. in tow of the tug steamer *Lady Elgin*, and in charge of Mr. Pilot Vardy, who had been specially applied for by the captain, and by the Firm of Messrs. Borradaile, Schiller and Company.

6. Mr. Hoskins, the Port Master, and Dr. O'Sullivan, the Civil Surgeon of Port Canning, were on board the *Eagle Speed*. The former by the desire of the Marine Authorities to assist by his presence and advice, and the latter to aid the doctor of the ship who was indisposed. There were also six gentlemen passengers on board the *Lady Elgin*.

7. The ship reached Halliday Island the same evening, and anchored for the night. The next morning, at 7 A. M. she was got under weigh, and proceeded seawards in tow of the tug, by the eastern channel, with the wind at N. E. and smooth water, expecting to make the floating light at about 3 P. M.

8. At about 2 to 2-30 P. M. the wind shifted to the southward and the sea increased. The ship made little or no headway with the ebb, and it became apparent that the *Lady Elgin* had not power to tow the ship out.

At about 4 P. M. the ship being about one mile and a half distant from the outer or R. R. buoy, fourteen from the floating light, and twenty-five from Halliday Island, one of the towing hawsers parted. The *Lady Elgin* was unable with the remaining hawser to keep the ship's head to the southward, and owing to the sea that was running and to the ship lying in an awkward position right across the tide and sea, great delay took place in passing the hawser afresh.

9. At about 6-30 P. M., just after the hawser had been passed, the ship took the ground, and continued to bump for nearly half an hour. The anchor was immediately let go, but the ship ceasing to strike as the flood made, and the pilot finding, as he states, that the *Lady Elgin* was able to tow the ship against the tide, the chain was slipped, and she continued to tow to the southward until about 9-30 P. M., when the feed pipe of the steamer gave way, and both the ship and the *Lady Elgin* were anchored.

Schedule D.—(Chart.)

C. and E. See Reports by Mr. Pilot Vardy and Captain Heath, filed at the trial before the Marine Court.

App. p. 17, l. 19.

„ 47, l. 5.

„ 18, l. 14.

„ 70, l. 11.

„ 48, l. 14.

„ 74, l. 10.

„ 147, l. 25.

„ 137, l. 20.

„ 21, l. 16.

„ 22, l. 6.

„ 66, l. 16.

„ 122, l. 6.

10. The ship's position at this time is shewn on the accompanying chart; that is to say she lay about $3\frac{1}{2}$ to 4 miles east of the centre Bulcherry Buoy, $14\frac{1}{2}$ miles from the floating light ship, and 16 miles from the nearest land.

11. During the night, the pumps were rigged and manned by the crew and emigrants, but as the water gained steadily on the ship, preparations were made for hoisting out the boats; at 3 A. M. the *Lady Elgin* was signalled, and on her boat coming alongside, information was sent that the ship was in a sinking state, and the *Lady Elgin* was requested to come to her assistance.

12. At daylight the *Lady Elgin* having repaired the feed pipe during the night, steamed to the ship; the captain of the ship hailed her to anchor close under the stern, having previously prepared a Manilla rope for the purpose of establishing communication. No distinct reply was given by the captain of the *Lady Elgin*, but she did not come to an anchor.

13. The life-boat was first lowered, and Mr. Hoskins took command. The boat was passed under the stern, and filled with women and children, (lowered into her by the captain and the store-keeper), and these were safely conveyed to the steamer. The boat was towed back towards the ship by the *Lady Elgin*, but after several attempts did not succeed in reaching her, owing to the *Lady Elgin* not towing her close enough with the wind and set prevailing. The boat continued occupied under Mr. Hoskins in picking up persons in the water and in saving life, until about 10-30 A. M., when both Mr. Hoskins and the crew being knocked up, went alongside the *Lady Elgin* to be relieved; after Mr. Hoskins and his crew left the boat, she remained alongside the *Lady Elgin* idle until about 11-30 to 12 A. M. when volunteers were called for, to go in her to fetch the captain of the ship.

The boat made a trip to the ship under the chief officer who had meantime reached the *Lady Elgin* in the ship's gig, and brought off the captain, a midshipman and some emigrants. On reaching

the *Lady Elgin* the crew jumped out of the boat, she stove under the sponsons, and went down afterwards while being towed by the *Lady Elgin*.

App. p. 73, l. 3.
 „ 96, l. 10.
 „ 130, l. 13.

„ 107, l. 1.

„ 163, l. 6.
 „ 145, l. 10.

„ 124, l. 23.

„ 127 l. 10.

„ 71, l. 20.
 „ 50, l. 3.

„ 81, l. 10.
 „ 128, l. 17.

„ 52, l. 7.

„ 65, l. 19.
 „ 107, l. 7.
 „ 137, l. 1.
 „ 159, l. 9.

14. The second boat lowered was the starboard cutter, of which Mr. Pilot Vardy took charge. The boat took a batch of emigrants to the *Lady Elgin*, but arrived alongside with her bows stove in, and was sent adrift.

15. The longboat was got out by tackles in the usual way, lowered safely into the water, and passed astern, the second officer taking command. The boat unfortunately got foul under the stern, and was stove under the ship's quarter through the mismanagement of the second officer. The boat was still serviceable however, and conveyed a number of emigrants to the *Lady Elgin*. The crew would neither remain in the boat nor return, and she was made fast alongside; subsequently the *Lady Elgin*, steamed ahead full power, the boat's thwart carried away, she sheared under the sponsons, was smashed and went down alongside.

16. After the longboat left the ship, the gig was launched, but in getting her over the stern one of the stanchions made a hole in her bottom. The chief officer took command, and several of the European crew and some emigrants reached the *Lady Elgin* in her, after which she swamped alongside.

17. After getting the longboat and gig away, the captain ordered the boatswain to launch the fifth boat which was on the skids. In attempting to do this the boat got jammed, and the boatswain immediately deserted the ship and swam to the *Lady Elgin*.

18. No attempt was made to launch the sixth and last boat.

19. During the whole of the time that the boats were employed in passing to the *Lady Elgin*, she was either drifting, or under steam, at a distance varying from $1\frac{1}{2}$ miles to half a ship's length from the ship. The same time was occupied in throwing over board all the lumber on the deck of the ship under the

App. p. 62, l. 4.

superintendence of the captain for the emigrants to get upon and float to the *Lady Elgin*.

The *Lady Elgin*, and the life-boat under Mr. Hoskins, were engaged for a considerable period in intercepting and picking up persons, both crew and emigrants so drifting from the ship, but as was to be expected under the circumstances, many were passed by and perished.

" 64, l. 5.
" 160, l. 15.
" 54, l. 11.
" 157, l. 2.
" 72, l. 2.
" 89, l. 23.
" 141, l. 1.
" 95, l. 10.

20. About mid-day the ship's life-boat came from the *Lady Elgin* under the ship's chief officer with a message from Captain Heath, (commander of the *Lady Elgin*,) to the effect that if the captain (Brinsden) did not then come off, the *Lady Elgin* would not wait for him.

Some difficulty was found in getting a crew for this boat, and the chief officer was obliged to offer a reward before the men went into her.

A crew was obtained, and among them was one of the men who had previously worked well in her under Mr. Hoskins, William Maynard.

" 54, l. 2.
" 146, l. 22.
" 72, l. 2.
" 84, l. 10.
" 98, l. 5.
" 148, l. 2.

21. The *Lady Elgin* had previously hailed to all hands on board the ship to jump over board, and shewed a board with writing addressed to the captain, as to the words of which there is some conflict.

22. All the Europeans at this time had left the ship except the doctor (Donaldson,) a midshipman, and a sick sailor, (Kemp.)

" 68, l. 19.
" 96, l. 21.
" 151, l. 10.

Under these circumstances, the captain after going below to see how high the water was, got into the life-boat over the stern and left the ship. The midshipman and some emigrants were also taken off in the boat, but she was not full.

" 93, l. 24.
" 111, l. 25.

23. On reaching the *Lady Elgin*, the captain, who had on a cork jacket, was assisted on board by two gentlemen passengers, Messrs. Carlisle and Maitland; he expressed a wish to lie down, and going below without further remark, went to sleep on the stern locker.

App. p. 22, l. 10.

24 Mr. Hoskins having by this time rested, asked Captain Heath to lend him the boat belonging to the *Lady Elgin*, which was in consequence, and now for the first time lowered. Some difficulty was found in getting a crew. Maynard, however, again came forward, and three others were shamed into going.

" 23, l. 5.
" 33, l. 13.

The boat started about 1 p. m., and on reaching the ship Mr. Hoskins called to the doctor to jump in, but the emigrants crowded down the ladder over his body and filled the boat before he could get into her. Mr. Hoskins transferred these emigrants to the *Lady Elgin* and returned to the ship.

The doctor and a number of emigrants then jumped over board, and were picked up and conveyed to the *Lady Elgin*.

" 23, l. 15.
" 132, l. 14.
" 109, l. 16.

In getting the doctor up the side, one of the hanging tackles was clumsily allowed to foul one of the thwarts of the boat, and tear the side out, and the boat was rendered useless in consequence.

25. When the boat left the ship on this last occasion, a number of emigrants and the sick European sailor were left hanging under the stern. The four topases were still on board.

" 100, l. 5.

One of the topases was seen to descend and fasten a line round the European, by which he was hauled on deck. The topases do not appear to have tried to get into this last boat, thinking that she would return, and relying on the doctor's promise to that effect.

" 87, l. 19.
" 109, l. 20.

26. After the boat last mentioned was stove, and had been hoisted up, the *Lady Elgin* steamed close to the ship, and picked up such of the emigrants as jumped over board and reached her, but the topases were not hailed to launch the ship's two remaining boats, and no attempt was made at that time to launch either of them: about an hour was occupied in this way.

" 109, l. 27.
" 96, l. 20.
" 100, l. 23.

27. A consultation was then held on board the *Lady Elgin*, in which Mr. Hoskins, Captain Heath, the mate of the *Lady Elgin*, Mr. Vardy, and the six gentlemen passengers took part; the ship's

officers were not present. Captain Heath said that the coal was only sufficient to take the *Lady Elgin* back to Canning, and that the weather looked bad; it seems doubtful whether the damaged feed pipe was mentioned, however it was agreed *nem. con.* to return to Port Canning and send assistance to the wreck. Mr. Hoskins took the leading part at this consultation.

28. Accordingly at about 2 P. M. the *Lady Elgin* left the ship, and steamed in the direction of the floating light to ascertain her position, of which no one on board was aware.

When she left, there were two large boats on her paddle boxes, these boats covered the paddles, and were either bolted down or secured by a cantpiece. No suggestion or attempt to launch these boats was made.

28½. The masts of the floating light were shortly afterwards sighted, and the *Lady Elgin's* head being put about, she passed the ship in going up channel at about three miles distance, and anchored at Halliday Island at 6-30 P. M.

29. When the *Lady Elgin* was abreast of the ship on the way up channel, the ship's captain was about on deck; he made no formal protest to Captain Heath against leaving the ship.

30. On her way up the river the next morning the *Lady Elgin* overtook a boat proceeding up. This boat turned out to be the fifth boat of the ship before described as having got jammed in the attempt to launch her; the boat contained the four topases, the sick European sailor, (Kemp) thirty-two male, and one female emigrant; she had no rudder, mast or sails, but there were three oars, two of which were broken, she was proceeding up under a blanket rigged as a sail on one of the oars, and was steered with another. This boat was 22 feet long and clinker built. The topases launched her without difficulty after the *Lady Elgin* left the ship; in lowering her the after-tackle carried away and she partially filled, but the topases baled her out alongside, and she was passed safely under the stern; whilst fast astern the rope broke, and she

App. p. 67, l. 1.

„ 52, l. 6.

„ 76, l. 3.

„ 100, l. 21.

„ 78, l. 10.

App. p. 79, l. 3.
 " 103, l. 8.

went adrift with two topases (Mills and Alsun) and some emigrants in her; there were no appliances in the boat except a broken oar. The topases rigged an emigrant's wrapper on this oar by way of shift for a sail, and with this and a piece of the stern sheets, torn from the bottom and used as a rudder, the boat regained the ship in about an hour; the boat was brought alongside under the mizen chains, two more oars (one of them broken) two blankets, a compass, lantern, cigars and some salt-meat were put into her, and after taking in the other two topases and the emigrants, she shoved off. With this load and with these appliances, the boat weathered the night, and some hours after leaving the ship having made out a light (probably a light from the *Lady Elgin* anchored at Halliday Island) she got fairly into the river.

" 76, l. 28

31. This boat left the ship at about 6 P. M., and at that time the water was up to the combings of the hatchways. It is in evidence that the ship did not founder until about 8 A. M. the following morning. This depends on the statement of one of three emigrants, two men and one woman, who floated ashore on a plank, and were recently found in the jungle, some 50 miles in land, well nigh starved.

32. The ship was totally lost; some emigrants who floated ashore on pieces of wreck after the ship foundered, have been found in the jungle and rescued; the total loss of life has been 262 souls, none of the Europeans are missing.

33. These being the facts of the case as they are proved in evidence, we now proceed to point out what, in our opinion was the cause of the catastrophe, and wherein the responsible persons connected with the ship, failed in their duty.

34. Mr. Pilot Vardy having already stood his trial before the proper tribunal, and been condemned for the actual loss of the ship, which was under his pilotage charge, will not be noticed in the remarks to follow, except incidentally.

35. The first two subjects which require our notice, are the numerical and

physical strength of the crew, and the competency of the tug employed to take the ship out.

36. There appears to be no regulation prescribing the number of the crew which emigrant ships shall carry.

The practice appears to be regulated by instructions issued by the Government Transport Agent, dated 10th December 1864, to the effect that such ships shall have as many men on their articles as they had when they cleared from England.

In this case the crew list handed in by the captain, shews a complement of 28, exclusive of four topases, all seafaring men, and four cooks, who are not borne on the ship's articles, besides the doctor and a compounder.

On the point of their physical condition, there is some conflict of evidence, Dr. Donaldson says four or five appeared to be unhealthy and sick.

Dr. O'Sullivan, who for the time was more directly in charge, and who saw and prescribed for the sick, says there was nothing the matter with any of them which a few days at sea would not remedy, and that with the exception of one or two who required trifling medical treatment, the whole crew was sound, though most of them were recovering from the effects of too much liquor.

The crew were mustered by the chief officer after leaving Halliday Island. He says every man came aft, and that only two or three looked weakly. On the other hand, it seems pretty clear that the captain, although well, was not strong, having but recently recovered from sickness.

The chief officer was altogether incapacitated by sickness. The doctor was sick with pleurisy and a broken rib, and there is little doubt that on leaving Halliday Island not more than half the able seamen were at work.

It will be well to say at once here, that we consider the ship's crew was numerically sufficient, and that we are not of opinion that the loss of the ship is in any way attributable to their physical condition; neither do we think that, had the ship got to sea, she would, in ordinary circumstances, have been thereby

Schedule.—F. (*Vide* instructions.

Schedule G. List.

App. p. 34, l. 20.

„ 40, l. 13.

„ 75, l. 7.

„ 11, l. 20.
„ 36, l. 1.

„ 38, l. 11.

„ 45, l. 7.
„ 75, l. 14.
„ 92, l. 18.

App. p. 51, l. 9.

endangered. But it is obvious that under extraordinary circumstances the lives of the emigrants were grievously imperilled by the physical condition of the men on whom those lives depended. In the emergency which happened, failing the captain and chief officer, (said to be a first rate man when well) the emigrants were lost men.

37. In this case the officers and crew were not mustered and inspected before the emigrants embarked, or the ship hauled out of moorings.

The question of course arises on whom the responsibility of seeing that the crew is efficient, lies.

The responsibility of the captain and pilot cannot be contested.

Mr. Marriott's evidence before the Marine Court.

App. p. 1, l. 20.
" 3, l. 23.

App. K.

The Emigration Agent and the Protector of Emigrants both repudiate any responsibility in the matter. The Emigration Agent says—"I had nothing to do with the crew. I thought they were all correct and right"; the Protector says, "I don't understand that my duties include any responsibility as to the number and capacity of the crew; there is a rule No. 19, providing for that duty; I received the list No. 6, ordered by the above rule from the commander; I will put in the return. It is not part of my duty to muster the crew and see that the provisions of rule 19 are complied with; I knew that there were twenty-six men on board, but I did not know their rating or condition, with the exception that the captain informed me that he had the same number he came out from England with, under engagement with the Emigration Commissioners;" and again further on, "the captain gave me to understand that he meant the same strength."

Emigration Agent.

On referring to the rules for the guidance of *all* persons concerned in emigration, we find it laid down in rules 14 and 15, that commanders are required to have crew lists prepared according to a given form and to lodge them three days before the embarkation of the emigrants in the Protector's office, and in rule 19—"That commanders are required to muster their crew in the presence of the pilot previous to the embarkation of the

emigrants, in order that their efficiency may be ascertained;" and again in the charter party or agreement executed by the Emigration Agent, clause 5, provides as follows:—"The master, officers and crew shall be approved by the said Emigration Agent." Under these circumstances when the Emigration Agent, Mr. Hunt Marriott, inspected the ship on the 19th, we think he failed in his duty in not seeing that the provisions of rule 19 were duly complied with.

The charter party, in clauses 5, 17, 14 and 18, provides further, that three life-buoys *shall* be provided; that the Emigration Agent *shall* have every facility to inspect the fitments, &c.; that one topas or mekter at the least *shall* be provided for every hundred or fractional portion of a hundred emigrants, and that the ship shall be towed to sea by a competent steam-tug.

Five life-buoys were provided in this case, but it is in evidence that these buoys were badly covered, and that owing to the water penetrating, they after a time soaked and went to pieces. The number of emigrants embarked was equal to 425 adults, there ought, therefore, to have been five in place of four topases. The steam-tug is shewn in evidence to have been incompetent to tow a ship of the size of the *Eagle Speed* under the circumstances in which she was placed, but as the question of her employment appears to have been referred to, and decided by, the Government of Bengal in the affirmative, no remark is necessary, further, than that Mr. Pilot Vardy certified that he considered her a first class steamer for the Mutlah, and that he preferred her to any other on account of the experience of her commander.

38. We now pass on to the Protector of Emigrants.

In the rules provided for the guidance of the Protector of Emigrants, we find it laid down in Rule 5, that it is his duty to see "that the ship is supplied with all necessaries for the voyage," in rule 6, that the ship is "in every way qualified to carry emigrants," and in rules 14, 15 and 19 (which are general rules,) as already stated above. Reading the above rules,

App. p. 149, l. 28.

Mr. H. Marriott's evidence before the Marine Court.

App. p. 3, l. 17.

Schedule F.

Protector of Emigrants.

together with Act XIII. of 1864, section 46, clause 5, and sections 53 and 55, we are of opinion that it was also the duty of the Protector (Captain Burbank) to see that the pilot and commander duly complied with the provisions of rule 19.

Schedule, Rules for Pilots, Section 3.—(*Vide* Annexure.)

We may add that section 3 of the standing rules for the guidance of pilots in the Hooghly and Mutlah, of which both the Emigration Agent and Protector must be taken to be officially cognizant, directs a pilot to decline moving any ship if he has reason to think that her crew is so weak or otherwise so inefficient as to be likely to cause unusual detention in taking her to sea.

We therefore think the Protector quite in error as to the scope of his duty in considering it not incumbent upon him to assure himself of the efficiency, physical as well as numerical, of the crew.

We also think it right to observe that the Protector by his own showing, took the captain's bare word for the fact that the number of the crew was up to the required standard, which appears to us hardly to argue a correct appreciation of the grave responsibility which attaches to the careful discharge of his office.

39. The next point in the narrative, which it appears to us necessary to notice, occurred at 4 P. M. on Monday, the 21st, when one of the towing hawsers parted.

It had been for some time apparent that the *Lady Elgin*, even with the ebb, was barely able to tow the ship against the wind and sea, the flood was about to make, and this, coupled with the above circumstance, was sufficient reason for turning back.

App. p. 60, l. 13.

After the hawser parted, there were two courses open, either to run back into smoother water and anchor for the night, or to anchor on the spot rather than drift on the sand.

The captain proposed to anchor, but yielded his judgment to the greater local knowledge of the pilot. The reason assigned for not running back was, that there was not sufficient daylight. This was contrary to the fact, the distance to

Halliday Island was only 25 miles, and to safe anchorage at the middle ground buoy less than 15, while the distance to the ring buoy where the anchorage is declared to be as good as at Halliday Island, was only $18\frac{1}{2}$ miles. There was a fair wind, a spring flood tide, and $2\frac{1}{2}$ hours of daylight. The truth appears to have been that the pilot hoped to get to sea, and elected to run the risk. The ship was about a mile to a mile and a half from the Roy Mutlah sand, and she was allowed to lie broadside on in the trough of the sea for two hours, with a set driving on to the sand. The inevitable consequence of that was, that she must go on the sand if no counteracting manœuvre was had recourse to; she did go on the sand in consequence, and we entertain no doubt that the loss of the ship is attributable to the inattention and neglect exhibited on this point, and to this only.

Captain Butler's evidence before the Marine Court.

App. p. 46, l. 16.

Vide sailing directions annexure.

40. While the ship was drifting in this position, there was no one in the chains, and the lead was not kept going. This was a grievous omission, and one for which the captain as well as the pilot is gravely responsible, for although he did not know the proximity of the shoal and the existence of the set, still the breakers had been seen all the way down, and it is the duty of the captain to see that the leadsman is at his post. "The bottom throughout the channels of the Mutlah is mud, the sands exceedingly hard, and the lead an excellent and safe guide towards them;" had the lead been carefully kept going and watched, the approach of the ship towards the Roy Mutlah sand would have been at once discovered.

41. After the ship took the ground, the course adopted was perhaps the only one possible under the circumstances; and during the night all that could be done to keep the leak under, and to get the boats ready, was done on board the ship.

42. We pass on to daylight on Tuesday the 22nd, when the *Lady Elgin* got up her anchor and steamed to the ship in answer to her signals and message of distress. The captain of the *Lady Elgin* was hailed to anchor under the ship's stern. And here we must express our decided opinion that it was the obvious and

Captain Heath.

bounden duty of the captain of the *Lady Elgin* at once to anchor, either under the quarter or the stern of the ship, 'as close as was consistent with safety.' There was no valid reason why he should not do so, he does not himself assert that there was : In his evidence before the Marine Court he only says—"I did not anchor near the *Eagle Speed* on the morning of the 22nd, but kept steaming backwards and forwards. I don't *think* lines could have been passed to the steamer from the ship, even if the latter had anchored at a safe distance from her bows, as both vessels were rolling heavily."

The consequence of this steaming backwards and forwards was, that the *Lady Elgin*, as already stated, was sometimes a mile and a half from the ship, and on one occasion not near her for an hour and a half. The life-boat could not fetch the ship, and eventually made but one trip; fuel was needlessly expended, and above all the precious hours of daylight slipped away, until the question became possible whether the *Lady Elgin* could remain out. The results on board the ship were as might be expected, deplorable. Panic, hurry, lumber thrown over board, and the crew and emigrants jumping into the sea and drifting in every direction, all of whom it was of course vain for the *Lady Elgin* and the life-boat, to hope to pick up.

There is abundant evidence both in the facts and the sworn depositions to shew beyond doubt, that it was not only possible and safe, but incumbent upon the *Lady Elgin* to anchor close to the ship.

In the first place she had but just purchased her anchor without difficulty, and come from her night's anchorage. There was no sea on in which even a fair weather boat, *e. g.* the gig, could not live, and have continued to pass to and fro had she not been stove; and none in which, as was subsequently proved, a ship's cutter heavily laden, could not live without proper rudder, oars, or sails. The captain of the ship, the chief officer, Mr. Hoskins, the chief mate of the *Lady Elgin* and those of the crew whose opinion has been asked, are unanimous that it was feasible and proper; and most of them swear that had the *Lady Elgin* remained

App. p. 108, l. 1.

" 69, l. 4.

" 71, l. 7.

" 123, l. 7.

Chief Officer's evidence before Marine Court.

App. p. 25, l. 2.
 141, l. 20.
 47, l. 22.
 55, l. 1 and 20.
 82, l. 21.
 83, l. 12.
 90, l. 4.
 121, l. 25.
 159, l. 17.
 67, l. 21.
 160, l. 1.

stationary but three hours close to the ship, every soul could have been saved. We are entirely of the same opinion ; we think that boats might have been pulled to and fro by a line between the vessels, or failing boats, that the emigrants who could not swim might even have been swung on board from the yards with ease if the *Lady Elgin* had anchored within proper distance alongside ; at any rate whether she had anchored alongside or astern, the boats could have gone more easily between the vessels, if she had only anchored. The fact of the *Lady Elgin* being close by, and stationary, would have inspired confidence on board the ship, and gone far to obviate, if not entirely to prevent the panic and confusion which took place.

We attribute the deplorable loss of life which occurred, mainly to the practical refusal of Captain Heath to anchor close to the ship in a proper position.

43. We must point out also that Captain Heath during this time shewed himself deplorably deficient as a commander in other respects. (1.) In allowing people on board his vessel to hail those on the ship to jump over board, and a board to be shewn, he, Captain Heath, not knowing, [if in fact he did not know,] what was written on it : (2) in sending the message which he did to the captain of the ship, (3) in the want of management, due care, and non-use of the boats.

While the *Lady Elgin* and the ship's life-boat were picking up emigrants from floating wreck, the *Lady Elgin's* boat was not apparently thought of, much less lowered, though on one occasion, fourteen emigrants passed by on a hencoop, while the *Lady Elgin* and the boat, it is presumed, were occupied with others ; again the ship's life-boat was suffered to lie idle alongside the *Lady Elgin* from about 10-30 to 12 A. M.

The long boat after coming alongside and being made fast to the *Lady Elgin*, was towed under by her while still in serviceable condition, and the life-boat after being stove, was towed astern until she went down, though it is in evidence that she might have been repaired in a quarter of an hour. Eventually the *Lady Elgin's*

„ 128, l. 27.

„ 64, l. 5.

„ 22, l. 6.

„ 66, l. 16.

„ 122, l. 6.

73, l. 19.

App. p. 22, l. 11.

Schedule. G. & H.—Offer of sale of paddle box
boats.
App. p. 67, l. 15. and Certificate.

Captain Brinsden.

App. p. 68, l. 6.

" 95, l. 23.
" 91, l. 9.

" 55, l. 21.
" 56, l. 19.

boat was lowered only when expressly asked for by Mr. Hoskins, and no attempt was made to launch the paddle box boats at all; these boats were each 29-6 long, with 10 feet beam, and built of mahogany. They were offered for sale to the Marine Department by Messrs. Borradaile, Schiller and Co., in December 1864, on the part of Captain Heath, they were in serviceable condition, and it is in evidence that it was possible to launch them by pitching them over board.

44. We now pass on to notice the conduct of the ship's officers. The captain was placed no doubt in a difficult and trying position by the behaviour of the *Lady Elgin*, and the uselessness of his chief officer, by reason of sickness; but we think he shewed throughout this stage of the occurrence, a deplorable want of the cool judgment and resources of a commander.

As soon as it was resolved to have recourse to the boats to save the emigrants, the crew and officers ought to have been mustered.

The captain was aware, or ought to have been so, that the ship was not likely to sink for hours. The crew should have been told this, the captain's intention to stand by the ship announced, their posts and duties assigned, and arrangements made with Mr. Hoskins to use all his authority and power of persuasion to make Captain Heath take up his proper station.

In place of all this the captain worked with his own hands, thereby frightening others, ordered lumber to be thrown over board and the emigrants to save themselves upon it, put on a cork jacket himself and allowed his chief officer and the European crew to do the like, and to appropriate the life buoys provided for the emigrants; and after being deserted by the European part of his crew and officers, except the doctor (Donaldson) and a midshipman, he left the ship under the circumstances before stated.

It is due to the captain to give his explanation in his own words.

"Under these circumstances I got into the boat, believing that the steamer would

leave, but with the intention of speaking to the captain when I got on board; but as soon as I got on board I felt so exhausted from exposure and from previous fever, five times, that I found myself totally incapable of speaking to any one on any subject at the time; I had no strength to protest against the desertion by the steamer; I was nearly senseless. Mr. Carlisle and Lieutenant Maitland, and Mr. Vardy, saw the state I was in; the two former helped me on board. I remained in this state about an hour and a half as near as I can remember, and recovered my senses and came on deck."

On the 13th September being re-called, he again stated as follows:—

"If I had remained in the ship I should of course have cut away the masts to form rafts, but I had made up my mind that the steamer would remain until all hands were saved. Had the steamer left me on board and deserted me, I could have cut away the masts, watching when she came broadside to the swell; I could have cut away the upper ones at any rate. I could have cut away also the laniards of the lower rigging, and of course the lower masts would have gone of themselves in the roll of the sea."

After making every allowance, we regret to say we are of opinion that the captain failed in his duty, especially in leaving the ship.

At the time he believed, and rightly believed, that the ship would live 4 or 5 hours, every resource had not been exhausted. There were still two boats on board, and four topases to launch them, not to speak of the crew in the boat which came for him, who might have been ordered on board to assist.

The masts might have been cut away, and would have at once formed rafts sufficient to have supported all the emigrants, whence the *Lady Elgin* might have picked them off, or left them while she called up the floating light ship. It is not the fact that the captain was so prostrated when he reached the *Lady Elgin* that he was incapable of expressing his wishes. He did not, however, protest against Captain Heath's leaving the ship, or seek an interview with him.

App. p. 62, l. 19.

88, l. 10.

95, l. 24.
111, l. 22.
131, l. 12.
157, l. 28.
91, l. 5.

The Chief Officer.

45. The chief officer of the ship did little or nothing, but he is stated by all to have been very sick and weak, and he did rouse himself to save the captain.

Dr. Donaldson.

46. The doctor did nothing. He was sick with an attack of pleurisy, and had a broken rib, and had been immersed in the sea; there can be no doubt, however, that he ought to have made a formal and strenuous protest against leaving the emigrants, and that the explanation which he offers for omitting to do so, *viz.*, that it was no use protesting when he knew it was predetermined to go, is altogether unsatisfactory.

See Dr. Donaldson's evidence before the Marine Court.

Second Officer.

App. p. 31, l. 12.
" 10, l. 16.

" 124, l. 9.

App. p. 72, l. 6.
" 94, l. 22.
" 108, l. 21.

Boatswain.

App. p. 31, l. 14.
" 35, l. 5.
" 39, l. 5.

" 52, l. 16.

Crew.

47. The second officer was sober, though suffering from the effects of liquor; there appears to be no palliation for the conduct of this man. After reaching the *Lady Elgin* in the long boat, which was partially stove through his mismanagement, as abovementioned, he and the crew jumped out of and abandoned her, though still serviceable, on the plea of exhaustion, and would not return. It is in evidence that he wanted to go up the *Lady Elgin's* side before the emigrants. He remained on board the *Lady Elgin* all the morning until volunteers were called for to fetch the captain, and then instead of coming forward, set the men an example of skulking. Eventually he went in the boat, but not until a reward had been offered by the chief officer.

48. The boatswain: This man had jammed his finger in giving the ship chain, and was on the day previous in a great measure, off duty.

The captain of the ship has sworn that he ordered this man to launch the fifth boat of the ship (which got jammed,) and that he deserted the ship contrary to his orders and swam to the *Lady Elgin*. After saving his own life, he did nothing. We think there is *prima facie* a case against this man, and also against the second officer under section 79 of Act I. of 1859.

49. The European crew generally, with the exception of William Maynard and William Wilson, behaved disgracefully, but it must be remembered that where there is no method or discipline, and the officers do not act like officers and seamen, the mass of the men are not likely to do their duty. The chief officer deposes that

App. p. 72, l. 13.

" 83, l. 20.

" 94, l. 19.

the crew generally, refused point blank, to obey his order to man the life-boat for the captain, but the weight of evidence is against any order, as such, having been given; they appear to have been only asked to go. Where there is no order, there cannot, as a matter of discipline, be disobedience, consequently we think the Act will not touch the crew.

50. It only remains to make a few short observations on what took place when the *Lady Elgin* left the ship, and on the conduct of Mr. Hoskins.

We feel bound to say at the outset that the calling in the aid of the passengers at the consultation was a farce, and, in our opinion very like an attempt to bolster up what the seamen felt to be unjustifiable by the support of those who were not competent to form a just opinion, and to whom no feasible alternatives were suggested. That no officer of the ship was consulted, and that a decision was come to and acted on without express inquiry from the captain as to the real condition of the ship, was highly culpable; it is a matter of some surprise that the impropriety of this did not strike some of the passengers. The reasons that were then, or which have been afterwards, mooted for leaving the ship are—(1) short coal; (2) threatening weather; (3) an injured feed pipe; (4) the prudence of securing the lives of those on board.

These reasons, in our opinion, were groundless. The *Lady Elgin* would have had ample coal to take her to the nearest land, whence she could have sent for assistance. The fact of the ship's cutter, in her wretched plight and laden condition, having weathered the night without difficulty, disposes in our opinion of the objection of weather in and above the position of the wreck, and offers a significant commentary on the conduct of those who urged it: If further evidence be necessary, the captain of the floating light ship has deposed that with the wind and sea there were at the sandheads during the night in question, the *Lady Elgin* might have ridden at anchor without jeopardy. The feed pipe was shewn to demonstration to have been in serviceable order by the subsequent action of the *Lady Elgin*. She had room for all the emigrants; she was originally a

App. p. 104, l. 19.

See Captain Brinsden's evidence before the Marine Court.

man-of-war, and an ocean-going vessel, and is known, in that capacity, to have been a good sea-boat and to have ridden out many a gale.

We are informed that she formerly carried 4 guns on her deck, 18-pounders, and that she has often carried 260 European supernumeraries for the fleet, &c., about the English Channel in safety in all weathers. If so, we think this an amount of top weight fully equal to 400 native emigrants.

That being so, we can only attribute the decision arrived at, and carried out, to a want of judgment, resource, and ability to meet emergency, amounting to incompetency to command, on the part of all the seafaring men in authority who endorsed it. We are confirmed in this conclusion by the additional facts that, whereas it was known that the floating light must be within the visual range of a blue light efficiently burnt, no one suggested burning such blue lights continuously throughout the night to attract her attention; nor when she was actually ascertained by the *Lady Elgin* to be within 14 to 15 miles, did it occur to any one to give the alarm and call her up. No expedient beyond working in the boats and returning to Canning seems to have suggested itself to any one. The chief mate of the *Lady Elgin* by the way states that, on one occasion he (late in the day) proposed to Mr. Vardy trying to run the ship up under sail, but desisted, contrary to his own opinion, on Mr. Vardy saying that it was impossible, the ship being water-logged.

There can be no question that the ship might have been run up and beached on Halliday Island if the cable had been slipped at daylight on the 22nd; it was then spring flood tide, with a strong fair wind, plenty of water in the channel, and the ship's draught was not more than 19 feet, for when the captain left her 6½ hours afterward, she drew, according to his evidence, 22 feet; running before the wind and sea, there would have been but little scend, and the ship could with ease have been run up under all sail in 4 or 5 hours, when every soul would have been saved. It would appear that no look-out, with a view to ascertain the ship's position

App. p 161, l. 4.

was kept during the night, for though it is in evidence that the floating light, distant 14 to 15 miles, was seen, it was not reported; and so the next day also, although the centre Bulcherry buoy was distant $3\frac{1}{2}$ miles only, at which distance, it is proved in evidence, that it ought, in the then state of the atmosphere to have been easily visible, it was not picked up.

51. Briefly, the whole occurrence throughout is characterised by a deplorable absence of all controlling judgment, a want of resource, and fear of responsibility. These remarks include Mr. Hoskins; he, like the captain of the ship, worked himself, instead of effectively directing the efforts of others. In the position he held, and under the circumstances, he ought to have assumed the responsibility, insisted upon Captain Heath anchoring the *Lady Elgin* close to the ship, and prevented him at all hazard, from deserting her; whereas the only occasion on which he seems to have asserted his position was unfortunately at the consultation when he led in advising return to Port Canning for assistance, it being at that time generally supposed that the ship would not live two hours.

112, l. 12.
97, l. 4.

There is this to be said in excuse for Mr. Hoskins, that he had exhausted himself by previous exposure to the sun, and by great physical exertion in the boats to save life; and as he himself states, he was probably not himself from fatigue; we desire to add that, while failing in judgment and resource, we think Mr. Hoskins shewed himself, in respect of his personal exertions to save life, to be a courageous and active sailor.

52. Here we feel obliged to revert to Captain Brinsden. When the *Lady Elgin* was abreast the ship on her return, he was on deck and recovered from his temporary prostration; he admits that he was all along fully aware how wrong it was for the *Lady Elgin* to leave; he also admits that he believed the ship, at the time he left her, had still some 4 or 5 hours to live, yet what does his remonstrance—if it can be called such—amount to? We quote his own words: "About this time I said to the captain of the steamer, this is a fearful thing to leave all these poor

57, l. 5.

creatures on the wreck, and he told me his reasons, *viz.*, want of fuel, feed pipe damaged, threatening weather, want of daylight to get back to Halliday Island, and the right to save all those already on board. His reasons did not satisfy me either in my mind or my feelings, although concurred in by all on board; but I made no formal protest, and the vessel proceeded on to her anchorage under Halliday Island, where she arrived before dark. I all along considered that the steamer was wrong to go away and leave the ship, and that she was not justified in doing so by any necessity. I am sure we should have got every soul out of the *Eagle Speed* if the steamer had stopped another two hours." This speaks for itself: no one made any other remonstrance, and with this, 329 souls were left to perish.

See Depositions of Mr. Hoskins, Captain McMaster, and Mr. Junior Pilot Ewart.

53. Before closing this report we deem it our duty to draw attention to the evidence which we have thought it necessary to take regarding lighting and buoying the Mutlah River. Upon that evidence, and the facts before us, we have to express our very decided opinion that the Mutlah is not sufficiently lighted for the purposes of safe navigation. An inner floating light is indispensable; without such a light there is no guide to lead an inward-bound ship up to a safe anchorage after dark, and we think that if such a light is not established, the port ought not to remain open with the sanction of Government.

We are also of opinion that the outer floating light ought to burn a blue light instead of rockets only. The mouths of the Mutlah and Hooghly are 30 miles apart, east and west, and the lead is a sufficient guide to prevent any dangerous mistakes.

With regard to the present buoying of the Mutlah, we think the channel safe as at present buoyed, but susceptible of improvement. The two outer buoys should be first class buoys. The ring buoy ought to be a second class instead of a third class buoy, as it is at present, and all the third class buoys in the outer channels should be second class; an additional second class buoy is also required between the spit buoy and the lower eastern Bulcherry buoy.

There is one other important point connected with the navigation of the Mutlah which demands notice, *i. e.*, the number and qualifications of the pilots; formerly there were six, but under orders of Government (Mr. Secretary Bayley's letter No. 1915, dated April 15th, 1864,) the number was reduced to four, and the pay increased to Rupees 150 per mensem each.

The candidate for the vacancy made by Mr. Pilot Wise, lost in the ship *P. C. Kinch*, is necessarily on probation, and one of the remaining three is employed at the port in hauling ships in and out of the moorings, so that practically there are but two pilots as a rule, though the port pilot, on an emergency, can be sent down the river.

The list does not provide for casualties, and taking into consideration the fact that, during the current year, there have been as many as ten ships at one time in the port, we are of opinion that the number of pilots should not be less than the original number—six—all of whom should be kept to their legitimate work, and an Assistant Harbour Master engaged to moor and unmoor ships, as provided in the budget estimate.

With regard to qualifications, we submit that the pay, reduced as it is by the deduction of mess money while on board the floating light at the sandheads, is insufficient to induce good men to enter the service. We think Government might pay the mess money while at the sandheads only. Two pilots would be constantly at the sandheads; and the average cost to Government for mess money would be Rupees 120 a month only, while the relief and encouragement to the pilots would be considerable.

54. The conclusions we arrive at are shortly—

That the Emigration Agent and the Protector failed in their duty in neglecting to see that the pilot and commander did theirs, and the former also in not providing proper life buoys and sufficient topases. It may be a question whether either of them ought to have let the ship go to sea at all with a doctor sick with pleurisy

and a broken rib, a fact known to both of them.

That the ship was lost owing to her being allowed to drift helplessly broadside on in the trough of the sea with a set on the sand under her lee, distant about a mile and half, for two hours.

That Captain Brinsden erred in not keeping a man in the chains, and that he erred deplorably in exhausting himself by personal exertion instead of directing others; in not insisting upon Mr. Hoskins using his influence to make the steamer anchor, by which means the boats could have saved all the emigrants with ease; in leaving the ship as he did, and having done so in not protesting against her abandonment; in not insisting on an attempt being made to launch the paddle box boats; in not cutting away the masts, and also in not having slipped his chain and ordered the pilot to run the ship up at daylight on the 22nd, whereby she might have been beached on Halliday Island.

That Doctor Donaldson erred deplorably in not formally protesting against the abandonment of the emigrants who were under his special charge.

That the second officer and the boatswain behaved disgracefully.

That the crew generally behaved badly.

That the loss of life is mainly owing to the steamer not anchoring, for which Captain Heath is to blame.

That Captain Brinsden and Captain Heath displayed a deplorable want of the qualities of command.

That Mr. Hoskins shewed deplorable want of judgment in not using his influence to make the steamer anchor, and in proposing the abandonment of the ship.

That the Mutlah River is imperfectly lighted, the buoys capable of improvement; and that the number and remuneration of the pilots on the Mutlah is insufficient.

We beg to bring William Maynard and William Wilson, Able Seamen, and the four topases, to notice, as men who did their duty under most trying circumstances.

A. J. R. BAINBRIDGE.

H. HOWE.

APPENDIX A.

REPORT of Survey on the Ship "Eagle Speed" bound to Demerara.

<i>Taglio Speed.</i>	1,237 tons.	United States, 1867.	Classed 3-3rd vertica.	May 1864. London.	May 1864, and re-classed.	3 Hawsers; 13 inches, 9 inches, 7 inches.	40 cwt.	1 1/2 inches.	300 fathoms	Round the mast.	27	7-6	4-6	None.	38,287 cubic feet, 510 Adults.	Good.	160 feet.	33 feet.	7 feet 6 inches.	55 feet.	30 in No.	Whole of the Upper Deck.	On Deck.	Good.	Good.
							"	"	"	"	25	7	4												
							35	"	"	"	22	6	4												
							40	"	"	"	26	8	4												
							38	"	"	"	25	5-9	3-0												
							18	"	"	"	26	8	4												
							10	"	"	"	*26	8	4												

I, the undersigned Surveyor, duly directed by the Master Attendant, under and for the purposes of the Emigration Act No. XIII. of 1864, hereby certify that I have carefully surveyed the above-mentioned ship, and have also examined her masts, yards, rigging, sails, pumps, ground tackle, and boats. I find that her hull is sound, tight, staunch, and firm in the fastenings; that her passengers' deck is not less than one inch and a half in thickness, and properly supported by beams of adequate strength, forming part of the permanent structure of the ship; and that her boats, pumps, and other equipments are suitable and sufficient for a vessel of her tonnage, and are in a sound and efficient condition; and finally I hereby report that the said ship is, in my opinion, sea-worthy and fit in all respects for the carriage of passengers on her intended voyage to Demerara.

The 27th day of July 1865.
S. G. BOON,
Assistant Master Attendant.

* To be fitted with another boat, dimensions as above.

APPENDIX B.

To

CAPTAIN H. HOWE,
Deputy Master Attendant.

DEAR SIR,

MR. VARDY is proceeding down the river with a ship in a day or two, the *Eagle Speed* will leave Port Canning in 8 or 10 days, can you give him an order to return at once, as we wish him to take her down, he being so well acquainted with the river and the vessel having coolies.

We are,

(Sd.) BORRADAILE, SCHILLER & Co.,
Secretaries.

CALCUTTA, }
The 5th August 1865. }

APPENDIX C.

To

CAPTAIN H. HOWE,
Deputy Master Attendant.

SIR,

It is with sincere regret that I have to report the grounding of the Ship *Eagle Speed* on the Roy Mullab Sand in tow of the Steamer *Lady Elgin*, and eventual abandonment in the Western Channel, with 14 feet water in her hold, 4 miles East of the Centre Bulcherry Buoy.

Twenty-first instant, 6 20 A. M., started from Halliday's Island, wind light, from north-east to east north-east, and proceeded down the Eastern Channel; 11 A. M. passed the Spit Buoy; 2 30 P. M. sighted the R. R. Buoy; 3 P. M. the wind shifted to southward with a very heavy swell; finding the steamer could do very little with the ship, I consulted Captain Brinsden and the Chief Officer as to the propriety of anchoring it being too late to return to Halliday's Island, the result of which conference being that there was too much sea rendering it unsafe, and that the steamer should hold us on. At 4 P. M. the steamer's hawser parted, and it was with great difficulty and loss of time that it was made fast again owing to the heavy sea. I then ordered the steamer to tow to the south-east to stem the tide, but at 6 30 P. M. the vessel struck in 4½ fathoms. Fearing that she might fall into less water, I let go the anchor, but finding that the steamer was able to tow me against the tide, I slipped from 30 fathoms, steering to the southward. At 10 P. M. the steamer hailed that she had carried away her steam-pipe; we cast off and anchored, veering to 60 fathoms in 7 fathoms water. coolies and crew at the pumps; the vessel making a great deal of water. At 2 P. M. the vessel had made 7 feet; made signals to the steamer to come and take out the women and children; 4 30 A. M. the steamer came alongside and picked up two boats; and shortly afterwards a third, the two last were stove alongside the steamer and cut adrift. The remaining boat made several trips but was stove also, when the captain of the steamer sent his boat twice, which was also stove; the vessel had then 14 feet water. A good number of coolies were picked up by the steamer, having saved themselves with hencoops and other things about the decks. The whole of the crew have been saved and 169 coolies—men, women, and children.

2 P. M. the steamer left, the captain stating that she was short of coals and it being imprudent to anchor in the channel for the night owing to the sea and threatening appearance of the weather.

The *Eagle Speed* was drawing 17 feet 6 inches.

I have, &c.,
(Sd.) J. W. VARDY,
Mate Pilot.

APPENDIX E.

To

CAPTAIN H. HOWE,
Deputy Master Attendant.

SIR,

It is with regret that I have to report, for your information, the loss of the Ship *Eagle Speed*, in pilotage charge of Mr. Mate Pilot Vardy, in the Western Channel of the River Multah, about three and a half miles east of the Centre Bulcherry Buoy. Captain, crew, and part of the coolies saved.

I have, &c.,
(Sd.) JOSEPH HEATH,
Tug Steamer Pilot.

APPENDIX F.

Extract of a Demi-official letter from Captain Tapley to Captain Burbank, dated the 16th December 1864.

WITH reference to the memorandum I sent you regarding the number of crew a ship ought to have, the Master Attendant has told me that if the ship takes as many men as she cleared from England with it will be sufficient. The Rules for transport were, when we sent them to China on War Service, and then it was supposed they had to man boats, besides keeping a fair number of crew on board, so if coolie ships have as many men on their Articles as they had when leaving England, it is all that is necessary; the same with ships taking troops to England.

(True Extract.)

C. BURBANK.

APPENDIX G.

List of Crew.

James Brinsden, Commander ..	...	...	1
Thomas DeGrouchy, Chief Officer ..	...	...	2
Henry Mathews, Second Chief Officer ..	...	...	3
Thomas Lockart, Boatswain ...	...	...	4
William Borth, Carpenter ..	...	...	5
William Ansell, Engineer ..	...	...	6
Philip McCormick, Cook ..	...	...	7
William Kemp, A. B. during the voyage	...	...	8
John Jefferson, A. B. ditto	...	...	9
James McLune, A. B. in Calcutta ...	...	...	10
Robert Smith, A. B. ditto	...	...	11
James Newgent, A. B. ditto	...	...	12
Michall Shaw, A. B. ditto	...	...	13
Charles Wilson, A. B. ditto	...	...	14
Peter Richardson, A. B. ditto	...	...	15
James McCartness, A. B. ditto	...	...	16
Thomas Nutson, A. B. ditto	...	...	17
John Thomas, O. S. ditto	...	...	18
Augustus Rigston, A. B. ditto	...	...	19
William Maynard, A. B. ditto	...	...	20
Edward Kemple, A. B. ditto	...	...	21
James Wilson, A. B. ditto	...	...	22
John Smith, A. B. ditto	...	...	23
Augustus Spugg, A. B. ditto	...	...	24
Alfred Reynolds, Steward, ditto	...	...	25
Charles Dermot, Store-keeper in Calcutta	...	...	26
Charles Hallahan, O. S. ..	...	...	27
James Williams, Apprentice ..	...	...	28

Besides four Topases and four Cooks, Doctor, and Compounder.

APPENDIX H.

CAPTAIN H. HOWE,

Deputy Master Attendant.

Calcutta, 29th December 1864.

DEAR SIR,

CAPTAIN HEATH having told us a short time since that he had understood that you might be disposed to purchase two paddle-box boats belonging to the Steam Tug *Lady Elgin*, we shall be glad to know whether you would still buy them if we can agree as to the price.

The boats, which are built of mahogany, are 29 feet 6 long with 10 feet beam.

We are, Dear Sir,

Yours faithfully,

(Sd.) BORRADAILE, SCHILLER AND Co.,

Agents, "Lady Elgin."

APPENDIX I.

CAPTAIN H. HOWE.

DEAR SIR,

WITH reference to our conversation of this morning regarding the paddle-box boats of the Steamer *Lady Elgin*, I have to state that in my opinion the boats are serviceable.

Yours faithfully,
J. CRANSTON.
Builder and Surveyor.

The 16th September 1865.

APPENDIX J.

COPY.

Calcutta, 5th August 1865.

I HEREBY certify that I consider the *Lady Elgin* to be a first class steamer for the Mutlah River, and that on account of the experience of the Captain I would much prefer that she should tow the Ship *Eagle Speed* to sea.

(Sd.) J. W. VARDY,
Pilot.

APPENDIX K.

No. 114.

(DUPLICATE.)

STATEMENT of the Crew and Passengers (Natives of India) proceeding in the Ship "*Eagle Speed*" bound to Demerara.

Native Crew.	Number.
Serangs, Lascars, &c.	None.
Commander and Officers' Servants	
Passengers' Servants	
European Crew, including Commander	26

NATIVE PASSENGERS.

450 Indian Emigrants.
3 Cooks.
4 Topases.
1 Interpreter and 1 Compounder.

JAMES BRINDEN,
Commander.

CALCUTTA,
The 18th August 1865. }

C. BURBANK,
Protector of Emigrants.

DEPOSITIONS.

Deposition of CHARLES BURBANK, inhabitant of Calcutta, who on solemn affirmation sayeth :—

I AM Protector of Emigrants of Calcutta. I visited the *Eagle Speed* before her departure from Port Canning on several occasions. I saw the coolies embark. There were 487 souls. My duties are defined in Act XIII. of 1864. There are also rules framed under Section 63 of that Act. The rule quoted does not include any responsibility as to the state of the ship, except that I have to ascertain that the ship is properly surveyed, which I do by calling upon the Government Surveyors for a report on the ship. I did so in the instance of the *Eagle Speed*, and received the report signed by Captain Boon. I don't understand that my duties include any responsibility as to the number or capacity of the crew. There is a rule, No. 19, providing for that duty. I received the list No. 6, ordered by the above rule, from the Commander. I will put in the return. It is not part of my duty to muster the crew and to see that the provisions of Rule 19 are complied with.

I knew that there were 26 men on board, but I did not know their rating or condition, with the exception that the Captain informed me he had the same number that he came out from England with under engagement with the Emigration Commissioners. Under the rules for my guidance, and with reference to the circumstance above stated, I believe that the crew of the *Eagle Speed* was sufficient in numbers. I had the authority of the Master Attendant for a vessel leaving with the same crew that she came out with. As regards their health and sobriety at the time of starting the Pilot is responsible. Had I seen anything to object to in the crew, any want of sobriety, I should decidedly have objected to the ship's departure. With the addition of the assistants, ten in number, I consider the ship was fully manned.

The usual bond of Rupees 10,000 was taken from the Commander.

It is part of my duty to see that a competent steamer is engaged. The Commander of the ship, or Agent, gives me a certificate that the steamer is a competent one, and I accept it. In this case the steamer was a second class one. I objected to her as such, but the Agents of the ship put in a certificate signed by Mr. Vardy, the Pilot of the *Eagle Speed*, that he considered the *Lady Elgin* a first class steamer for the Mutlah, and that he preferred her to any other tug steamer in consequence of the knowledge which the Commander possessed of the river. I submitted this question to the Government of Bengal, and they approved of the *Lady Elgin* being employed, until Commanders of first class tugs had passed for the river.

With regard to my statement as to the number of the crew and their rating, the Captain gave me to understand that he meant the same strength. I was not on board when the *Eagle Speed* left the following morning. When I left the vessel she was to have left then and there.

Deposition of A. CUNNINGHAM DANDO, inhabitant of Calcutta, who on solemn affirmation sayeth :—

I AM Surveyor to Lloyds and Agent and Surveyors to Veritas. I surveyed the *Eagle Speed* in April, not as an emigrant ship, but for cargo. I found her a very good ship indeed, sound and staunch, and gave a certificate to that effect. I should say that the complement of the *Eagle Speed* would be about 2 $\frac{3}{4}$ men to every 100 tons, that is, if I commanded her myself, I should put that number in her, but with the appliances of the present day many men would consider 2 $\frac{1}{4}$ sufficient. Thirty-three would be a sufficient number, and the ship well manned. In England it is usual to advertise the number of crew intended to be carried for 2 or 3 days, and then unless some of the crew object to it, that is, the recognized number, and the men sign Articles accordingly; if any object that is considered a legal objection. I should say that a minimum crew for the *Eagle Speed*, consistent with safety going on her voyage, would be 26 working hands, exclusive of the attendants on the coolies. I did not examine the boats. I had no reason to do so; I merely survey for the cargo, unless in the case of a ship specially surveyed to carry living freight.

Deposition of SYDNEY GERALD BOON, inhabitant of Calcutta, who on solemn affirmation sayeth :—

I AM an Assistant to the Master Attendant and Agent for Transports, and I occasionally survey emigrant ships. As Agent for Transports I survey all ships tendered for troops. I surveyed the *Eagle Speed* for the conveyance of emigrants to Demerara. She was well found in anchors and cables and everything, and had six boats. I consider the *Eagle Speed* was sufficiently manned as regards the number of the crew. I considered the *Eagle Speed* to be perfectly sound and staunch and sea-worthy. I have had 24 years' experience in the Marine Service of Government.

Hands in the Survey Report on the Eagle Speed annexed.

Deposition of THOMAS HOSKINS, inhabitant of Calcutta, who on solemn affirmation sayeth :—

I AM Port Master of Canning Town. I am not aware of any rules for my guidance with respect to the departure of emigrants from Canning. The same rules, I presume, would apply there as in Calcutta. I have no *defined* rules for my guidance as Port Master with reference to a ship's departure, merely I appoint the Pilot. I produce the rules for the guidance of Pilots in the River Mutlah. I went on the *Eagle Speed* as a passenger, not in authority. I had been suffering from fever for some time, and I thought a trip to the Sandheads would do me good, and as the *Eagle Speed* was going down, I thought it a very good opportunity. Captain Howe also suggested to me to go down to assist as far as I could with my assistance and advice. On the morning of the ship's departure the Captain was perfectly sober. He was four months in the Mutlah and I never saw him the worse for liquor. On that morning I was constantly in contact with him and he was perfectly sober. The Chief Officer was also sober, although complaining of being unwell. He was about the decks on duty. I had seen him for four months also, and never saw him the worse for liquor.

The Second Officer was suffering from the effects of liquor indulged in the previous evening. I can't say whether he was at work or not; he was about the deck. I can't say whether he was able or not to do his duty, because I had nothing to do with the crew and did not take particular notice of them; in this instance the general appearance of the Second Mate—want of smartness and flushed appearance—induced me to notice him.

I didn't see the Boatswain on the morning of departure. He was not on duty as far as I observed. I can't say much about the crew on that day; I didn't take particular notice. They got the anchor up. I don't know if any of them were incapacitated by drink. I heard there were some sick. I don't know how many. I didn't notice whether the crew worked well or not going down the river. We anchored at Halliday Island for the night and started the following morning. We got underweigh about 7 A. M. Supposing everything had gone on straight, and the wind had continued as it was, we should have been out at 3 o'clock P. M.

When the ship left Halliday Island the Captain complained of being unwell, but he was on deck on duty; he was perfectly sober, and continued so until we got into difficulties. The Chief Officer was unwell too. The first part of the morning he was on duty; I don't know when he went off duty, but it was about 9 o'clock. I saw him come out of his cabin and be very sick into a bucket. He said, "Doctor, what have you given me?" I heard the Doctor (O'Sullivan) reply, "I have given you an emetic."

I did not notice the Second Mate on leaving Halliday Island. I can't say whether he was on deck or not. I saw him in the afternoon; he came aft to bend the spanker at about 1 P. M. He was doing his duty then, and I saw nothing wrong about him all that day.

I didn't see the Boatswain on the morning of departure from Halliday Island. I heard that he had lost the top of his finger in giving the ship chain. I didn't hear that he was incapacitated partly from the effects of liquor; I didn't see him the whole of that day.

I saw very little of the Carpenter, but whenever I saw him he was sober. At 8 that night I saw him sounding the pumps, and he was perfectly sober then. I did not take notice of the crew on leaving Halliday Island, some were off duty, because the Doctor was asked to look at them. I can't say how the ship was worked, or how many men were on duty. The crew were mustered after leaving Halliday Island by the Chief Officer in the cabin. I heard the order given by the Captain to muster the crew. They were not mustered that I know of before starting from Canning, but they might have been without my knowledge. They were never mustered in my presence. On leaving Halliday Island the wind was north-east, squally, fresh breezes with showers of rain, but not threatening; barometer low, but I did not see it; the weather kept the same until 2 P. M. At 3 P. M. the steamer began to shew that she was incompetent and unable to tow the ship out. The wind shifted, and a heavy sea came on; this was about half past 2. We were not being towed more than one knot an hour, we might be going about 2 knots with the ebb tide. We sighted the outer buoy, the R. R. Buoy at about 4 P. M.; it is about 11 miles from the outer light; we were about 1½ miles distant from the buoy. At the rate we were going, I can't say how long it would have taken to tow out, because the flood came in and we lost the ebb tide. I did not see the Floating Light. We saw the buoys all the way down. I can't say whether it was prudent to go on under the circumstances, as I was not the Pilot and knew nothing of the channels. I think it was too late to run back. On reviewing it since, I certainly think it would have been safer to have run back, but I did not consider the circumstances at the time.

During the time, from 2 to 4 P. M., the Captain and Second Officer were on deck, I am not aware that anything was said by them to the Pilot, or by the Pilot to them, about the critical state of the ship. I did not observe either one way or the other, whether the Commander or Second Officer carried out the Pilot's orders. The flood came in about the same time the hawser parted. We were then about a mile off the sand, the channel being about 3 miles broad. I can't say what the drift was. We could have run back in safety at 4 P. M. with a fair wind and tide, and 2½ hours daylight. It would decidedly have been safer to have run back, under the circumstances just stated, than to remain drifting broadside on for 2 hours in the trough of the sea, with the tide setting right on to the sand under our lee. The *Eagle Speed* could have run up under canvas, as she did, and as all ships have to do, or

work up without steam, coming in. It was better to anchor than to drift on to the sand. She rode in safety on the sand and would have ridden in safety in the channel; such is my belief now, although it was not at the time. I did not think the vessel was going on the sand, and therefore did not draw a comparison between the prospective possible danger of anchoring, and the positive danger of going on the sand. I thought the drift was up channel. The only thing to be done was to let go the anchor or run up; no precaution was taken that I am aware of beyond passing the hawser. I am not aware whether there was a man in the chains at the time she struck; there was a man there a short time before. I heard him sing out. The vessel struck at about 6 p. m., and the anchor was let go to prevent her drifting to a more dangerous part of the sand; but finding the steamer could tow us the chain was slipped, and the steamer towed us to the southward until about half past 9 when we were obliged to anchor on account of the steamer breaking down. When the ship struck the Captain ordered the pumps to be sounded and rigged immediately, which was done. The pumps were set a going; the coolies were divided into gangs; the Store-keeper and I got them to come up out of the between decks. The Captain then was on the forecastle with the Pilot looking after giving the ship chain, and bringing her up safely; I did not see the Chief Officer at this time. I saw him during the night. He did not superintend the pumps, &c., at this time. The Second Officer was at his duty; I heard he was giving the ship chain, I didn't see him. I don't know where the Boatswain was; I did not see him all that night. The Carpenter and Engineer were there. At 3 in the morning the water had gained so much upon us that the ship was in a sinking state. We signalled the steamer, and she came to our assistance about 4 a. m. There were 11 feet in her, and we all thought she would go down about 8 or 9 o'clock. I then left the pumps, and the Chief Officer being unwell, I said "I will take charge of a boat if you have no objection, or I'll stop on board." The Captain said he would be very glad if I would take charge. Mr. Vardy passed the same remark that he would take charge of a boat or remain in the ship, and the Captain's reply was to the same effect. This was about 5 a. m. when Mr. Vardy left the ship, and the Captain remained in sole charge of the ship. I got a crew of four hands and lowered the port quarter boat. Mr. Vardy lowered the starboard quarter boat. The crew of my boat were lowered in the boat some of them. I jumped into her after she was lowered by means of a rope. Finding she would have been stove in alongside, there being a heavy sea and the ship rolling a great deal, I immediately went underneath her stern, and told them to put the side ladder over the stern, which was done,—a rope ladder with wooden steps. A line was passed along by some one and we held on to it. The officers and crew were not told off systematically to the boats. The Chief Officer was sick, and the Second Officer was not on the spot; I did not see him. I got my crew from the pumps. I did not see the Boatswain. I saw the third boat in the water; she was alongside the steamer. I think the Second Officer was in charge; he was on board of her. This boat must have been launched from the skids. I don't know if any one else volunteered to take charge of a boat. When I went under the stern, the Captain placed the women on the ladder, and with the assistance of the Store-keeper and the Steward lowered the children by a rope. The coolies were under control, as far as I could see, and everything going on properly.

I saw the fourth boat, the gig, in the water; she passed me adrift whilst I was picking up some coolies, and I then went alongside the steamer; there was nobody in the gig. I heard that she had been to the steamer with the Chief Officer, and then sent adrift because she was stove in launching. I went about picking up men floating on pieces of wreck and hencoops. I went alongside twice, but missed the vessel on account of the set and the wind, and the crew, two of them, not being able to pull, not accustomed to pull in a heavy sea. They were quite sober.

There was no great difficulty, if you paid attention, in laying your boat alongside the steamer to put the coolies on board. I subsequently made two trips in the steamer's boat and reached the ship. I was obliged to give in from fatigue and exposure to the sun at about 10-30, and I laid down on the deck for about an hour and a half, when I recovered, and asked the Captain of the steamer for his boat. He consented to give it to me, but I had some trouble in getting a crew. Mr. Smith and some other gentlemen on board shaming them into it, they manned the boat. They did not refuse, but made no reply, and walked away. No Officer of the ship was present to order them. They were on board, but I don't know where.

Their own Officers being absent, I said "men, will you come with me?" Some made no answer and walked away, and some complained of sickness; at last Mr. Smith and other gentlemen passengers shamed four of them into it, and I got into the boat and went alongside of the ship. The only European I found on board was the Doctor. I said I had come for him and as many coolies as I could carry. The coolies jumped overboard and filled the boat before he could get down.

I put them aboard the steamer and returned again to the ship. The Doctor and many coolies jumped overboard, and I took him and as many coolies as I could.

In getting the coolies and Doctor up the steamer's side, my crew carelessly or wilfully allowed a hanging boat tackle to catch the thwart of the boat and tear the side out, and so made her useless, and I was obliged to go on board.

Two boats were left unlaunched on board the *Eagle Speed*.

I don't know how the other boats were stove; before I left the first boat I asked some one to relieve me; Mr. Vardy from the steamer promised to do so, but did not.

After we took to the boats, I saw none of the crew and officers of the *Eagle Speed* until the evening, when I saw the Chief Officer, who was sober, but sick; I think lying down. I saw some of the crew of the *Eagle Speed* when I went alongside the steamer in my trips; I saw none of them drunk that day.

I saw the Captain of the *Eagle Speed* exerting himself on the poop as long as I was in the first boat I used. Nothing beyond taking to the boats was done on board the *Eagle Speed* that I know of; they might have made a raft; all the loose things, hencoops, hatches were thrown overboard, which caused great confusion and loss of time. I suppose the Captain ordered it, as he was on board. If, instead of having to pick up coolies floating on them, my boat even had been regularly and properly worked she might have saved the entire number; I took some 30 in her the first trip.

The steamer had the boat I used, a small punt and two paddle-box boats; she had an ordinary crew of Lascars; a Chief Officer, Engineer, and Captain, Europeans.

The Captain said she had only enough coal on board to take her back to Canning; I don't know whether she had coal in ballast. The steamer might have anchored near the ship; the ebb would have brought smoother water; I saw no danger in her stopping. I would have stopped if I had commanded her. Had we stopped we might have picked up swimmers, and stopped and used the fifth boat of the *Eagle Speed*, which was, after we left, launched by the coolies and topasses.

I know of no effort being made to launch the paddle-box boats of the steamer; I should say from their appearance that they were not seaworthy. I didn't examine them, and the next day being ill, I didn't leave the poop. I don't think there was any means of getting a purchase to launch them from the mast; she had no spare rope on board. Lines might have been passed from the steamer to the ship, which might have been of use. The steamer left because the Captain (Heath) stated his machinery was out of order and that he had no coal.

He was not urged to stop by any one that I know; he stated in my presence that he could not remain; he then steamed off to find out our position.

I think I had no authority as Port Master, under the circumstances, to order him to stop. When I saw we could steam I didn't disbelieve the Captain's (Heath) assertion about the machinery being out of order.

The steamer might have steamed to Halliday Island, some 15 or 18 miles, whence wood might have been procured in smooth water with the punt, but that would have been a long business.

The floating light was about 15 or 18 miles from the scene of the wreck.

She is a sailing brig and has boats; well found in boats.

The steamer might have gone to her; I might have asked the Captain of the steamer to go for her. It never occurred to me. The Captain of the steamer sighted her mast head and so got his position.

No gun could have been heard by the brig if we had one on the *Eagle Speed*. I don't know whether there was one on the steamer or the *Eagle Speed*. I presume the reason of not going to the floating light ship was, that the Captain considered he had stopped by the wreck as long as he thought proper.

An inner light is very much required in the Mutlah, but it would not have saved the *Eagle Speed* after she struck; to a vessel caught higher up, like the *P. C. Kinch*, such a light would have been safety.

When we were going up the river back to Port Canning, I saw the Captain of the *Eagle Speed*; he complained of being unwell. There was dinner at Halliday's Island; I wasn't at table, I believe he was. I saw him a short time after I came on the steamer the last time in the cabin; he was lying down; he answered me when I spoke; the next day he was about but complaining; he did not complain of sunstroke. I saw the Chief Officer during the afternoon; he complained of being unwell; he looked unwell; I can't say whether I saw him walking about or sitting up, or what. I can't say if he was at dinner; he was carried out of the ship at Port Canning; he was assisted on shore. I know nothing of the Second Officer, Boatswain, or crew.

When they went ashore (the crew) they appeared to me all healthy and well. They all went ashore in one boat.

So far as I saw the Captain and Officers of the *Eagle Speed* carried out the orders of the Pilot. I heard nothing from the Pilot to the contrary. When the coolies were being passed out of the ship, he (the Captain) assisted the women on to the ladder and lowered the children by ropes.

He would have acted certainly with more judgment had he exerted his authority and experience in directing and providing means for the safety of all, instead of working with his own hands.

The Store-keeper and Steward assisted him in lowering the women.

The steamer left the wreck about 2 p. m.